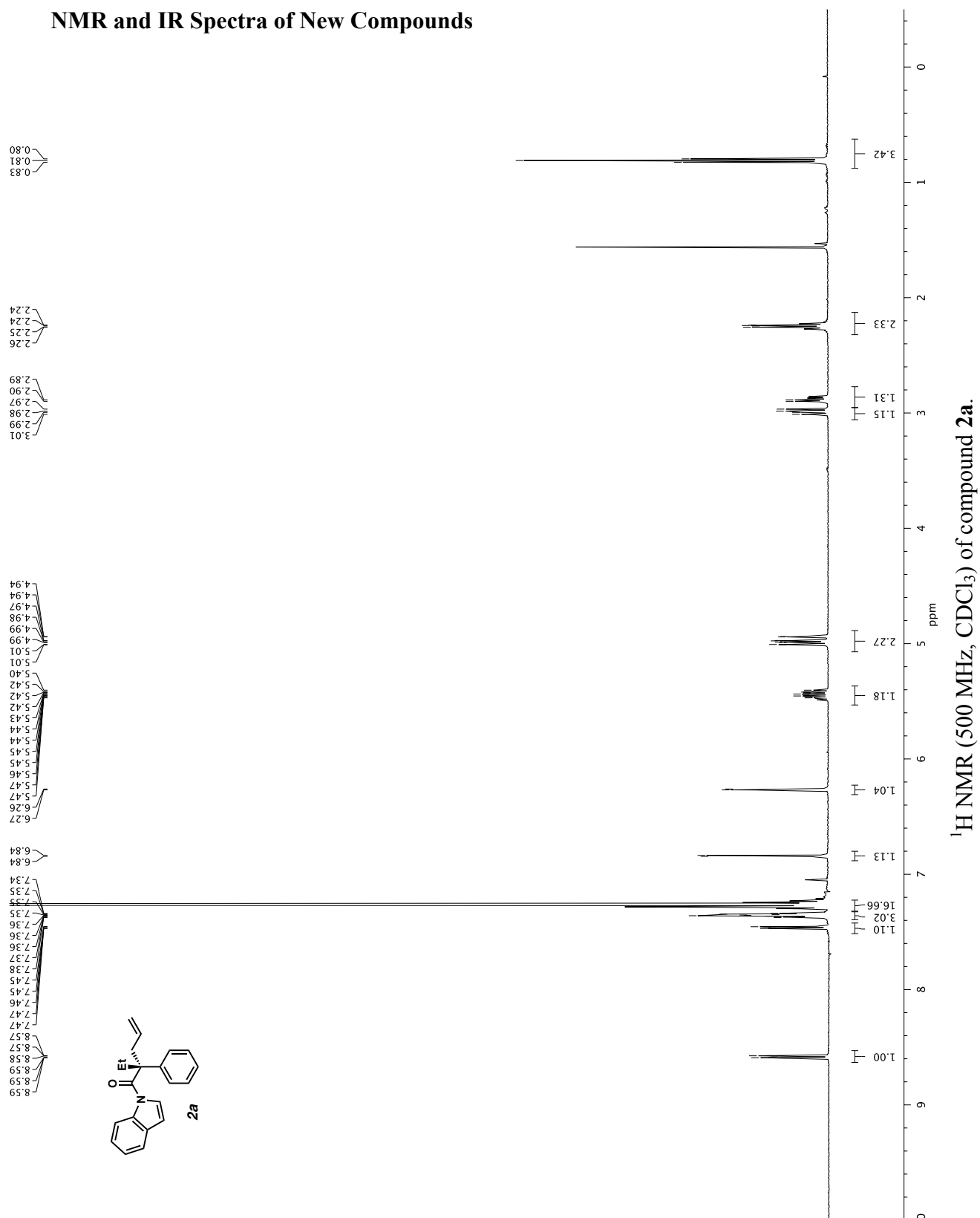
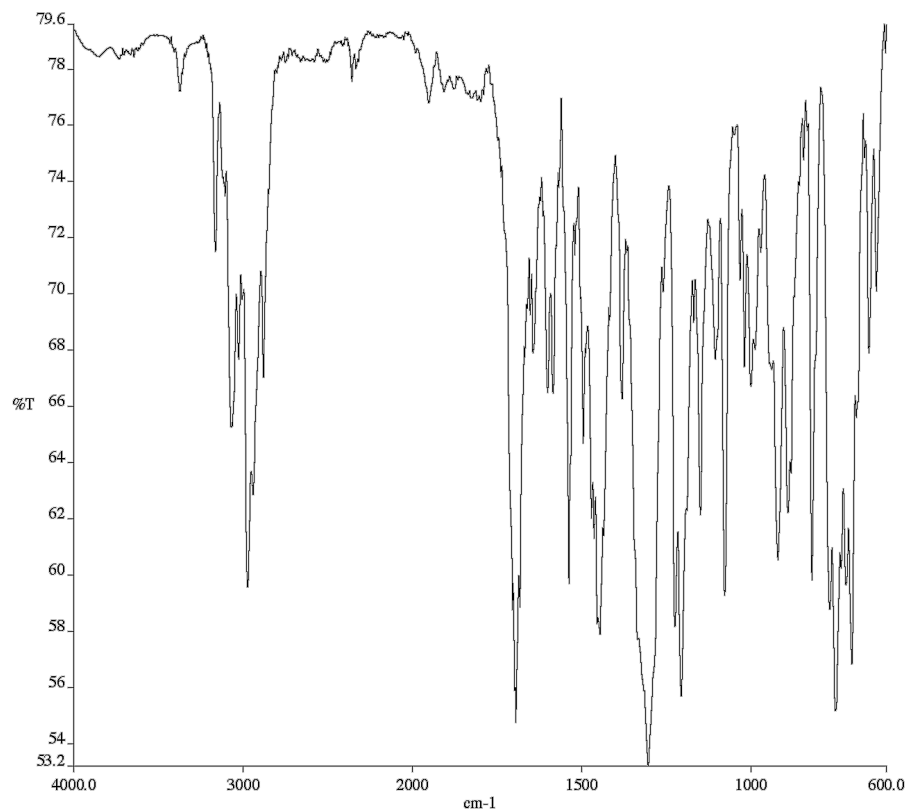
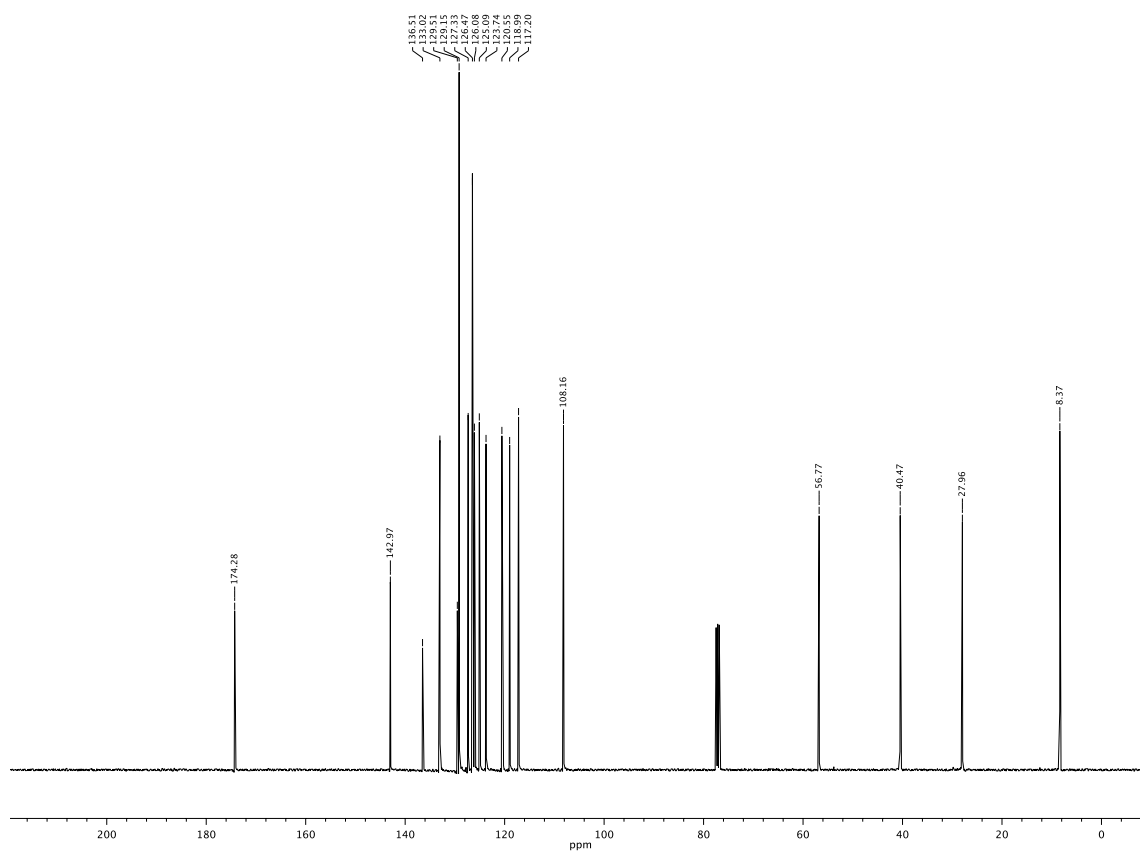
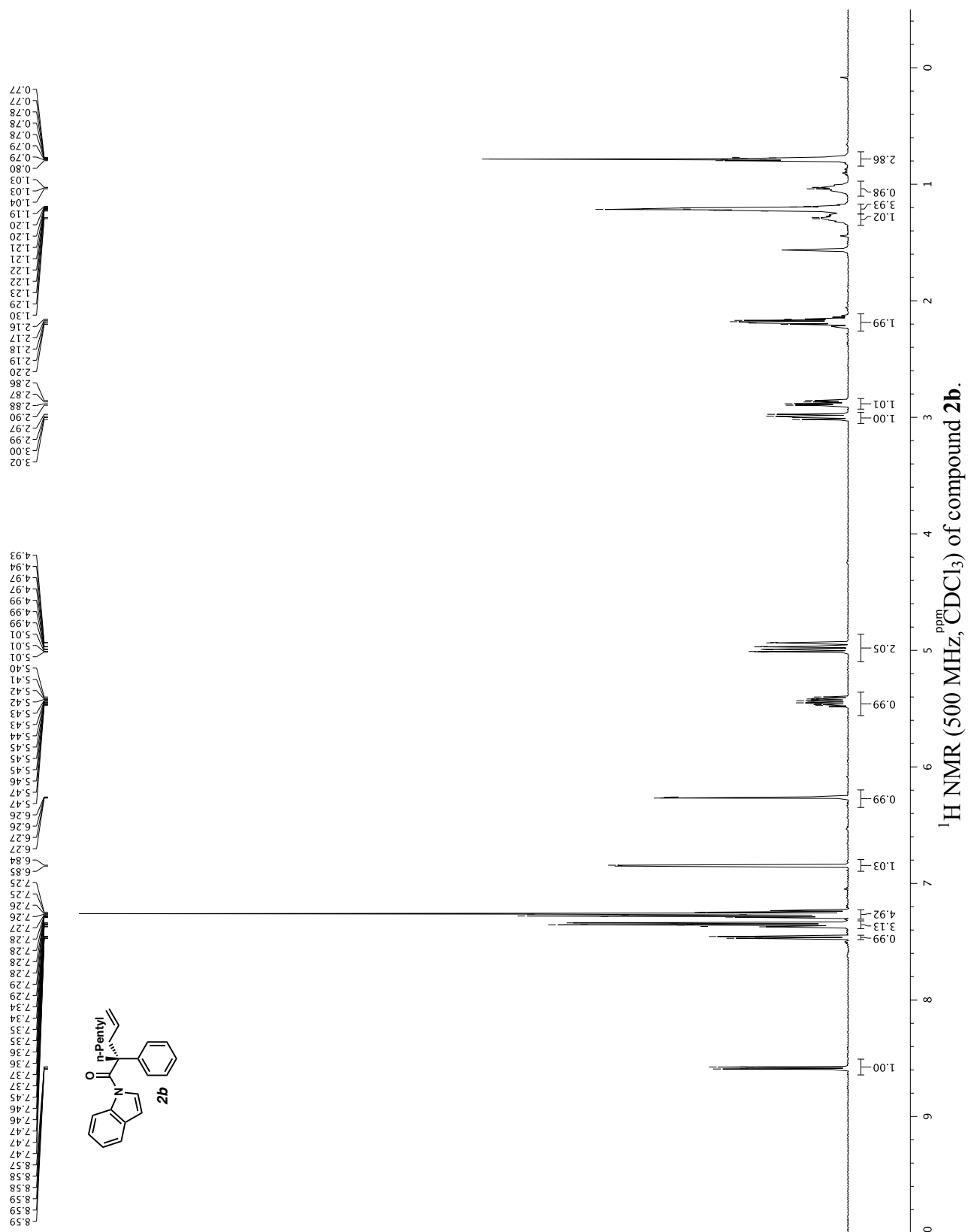
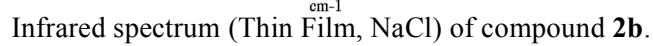


# NMR and IR Spectra of New Compounds

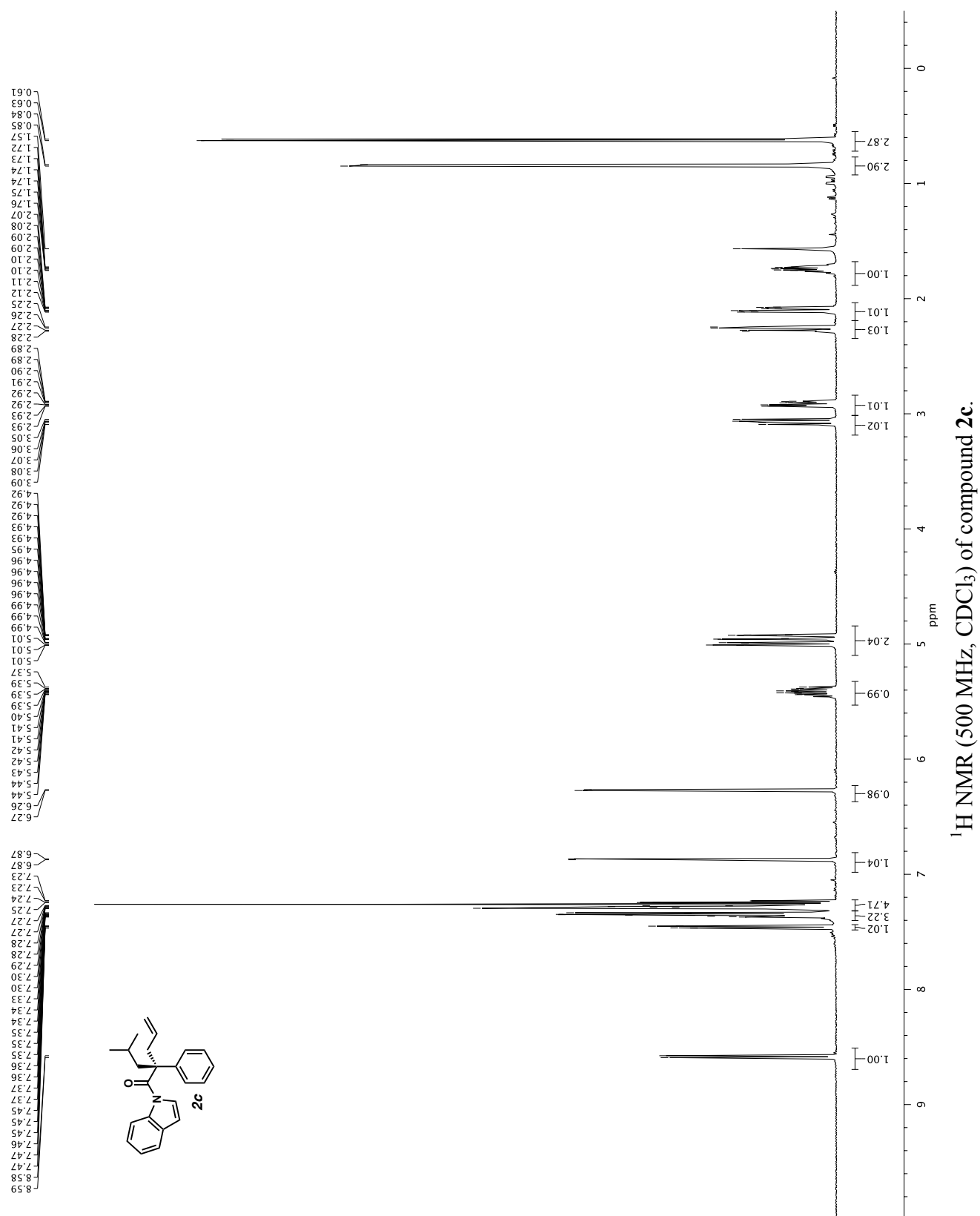


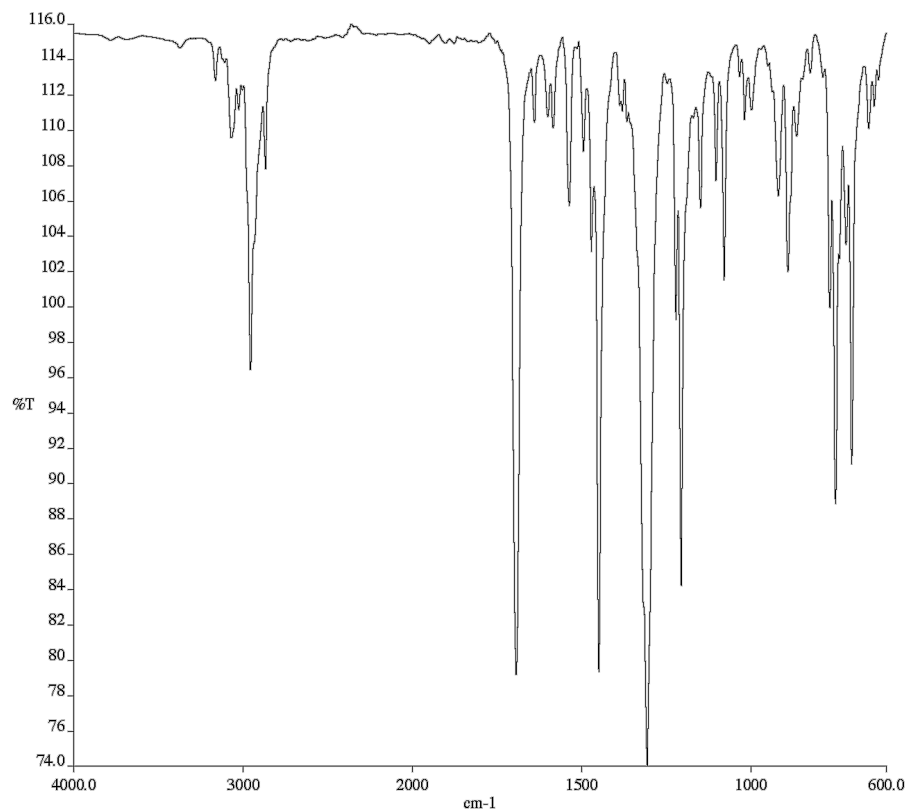
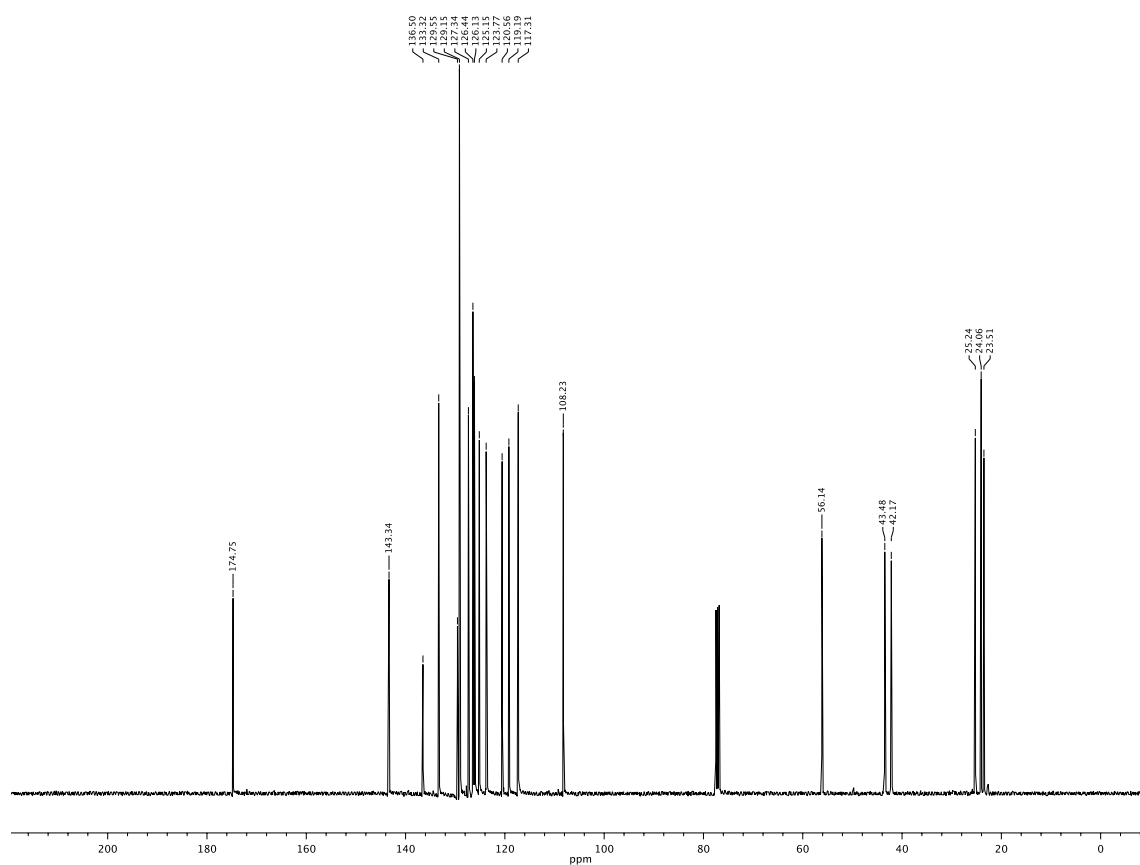
Infrared spectrum (Thin Film, NaCl) of compound **2a**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2a**.

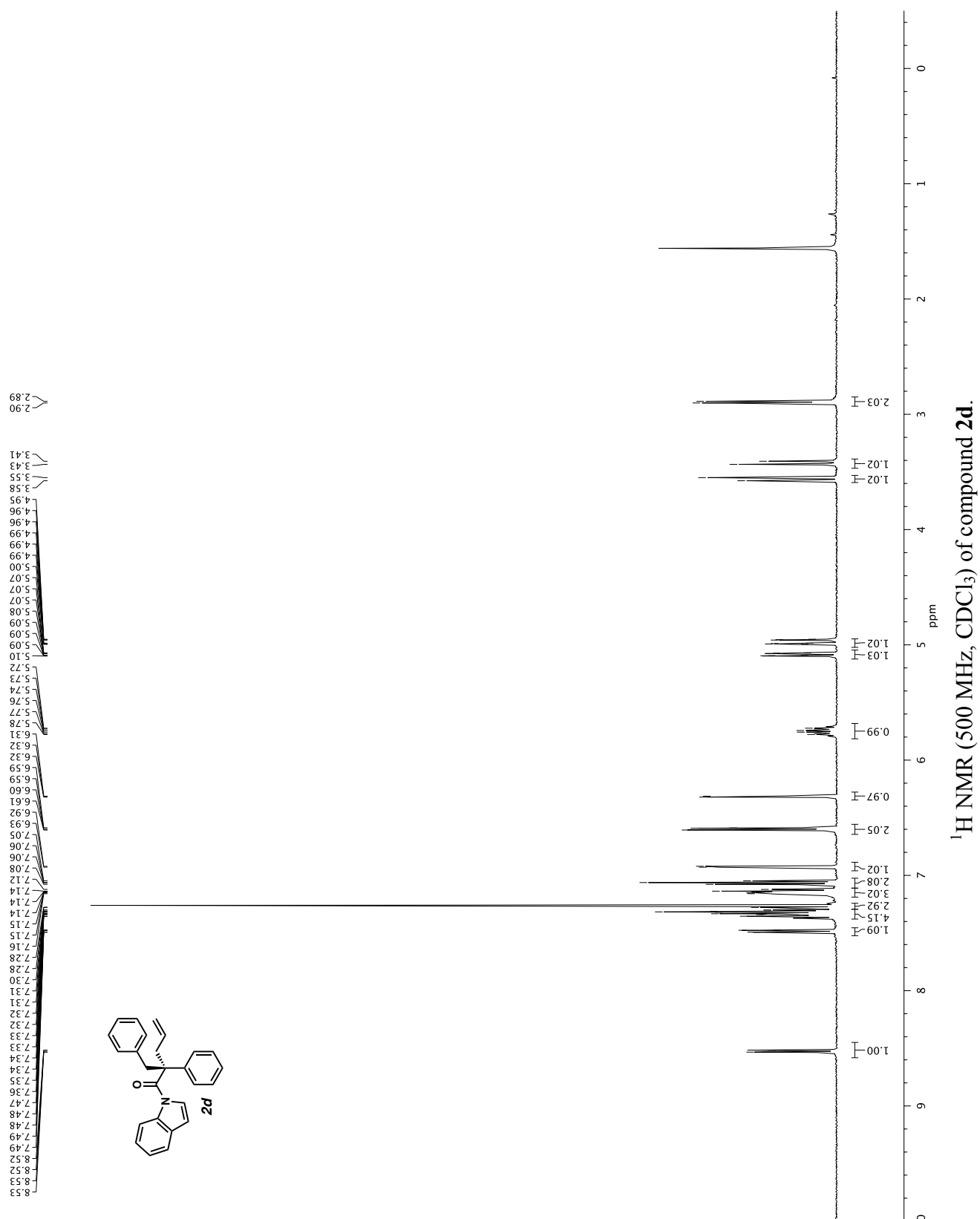


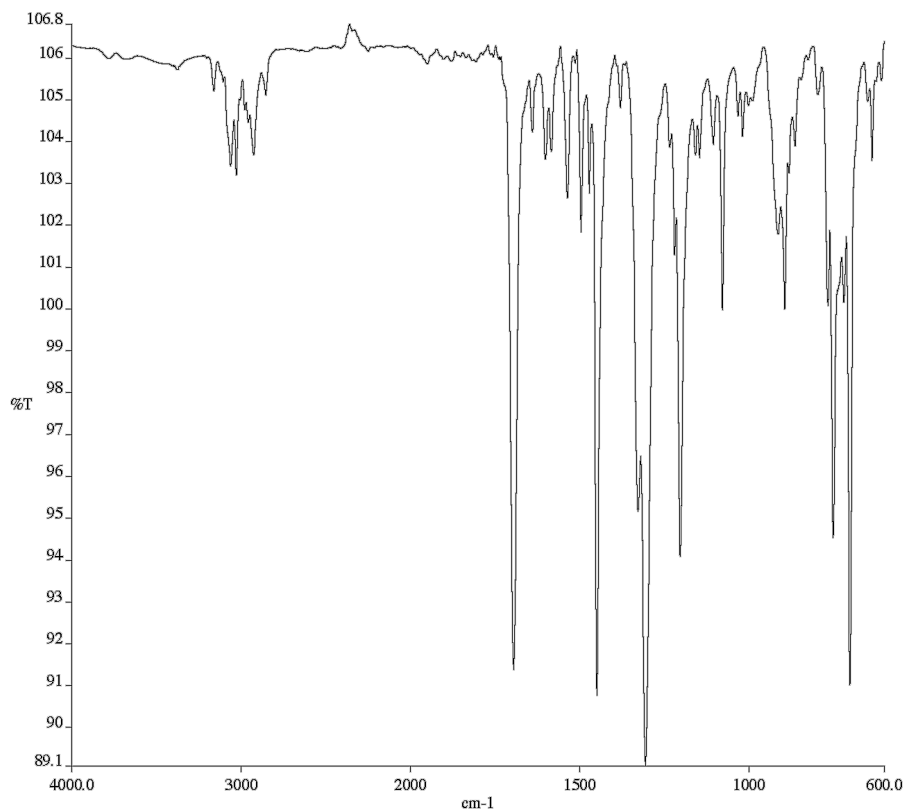
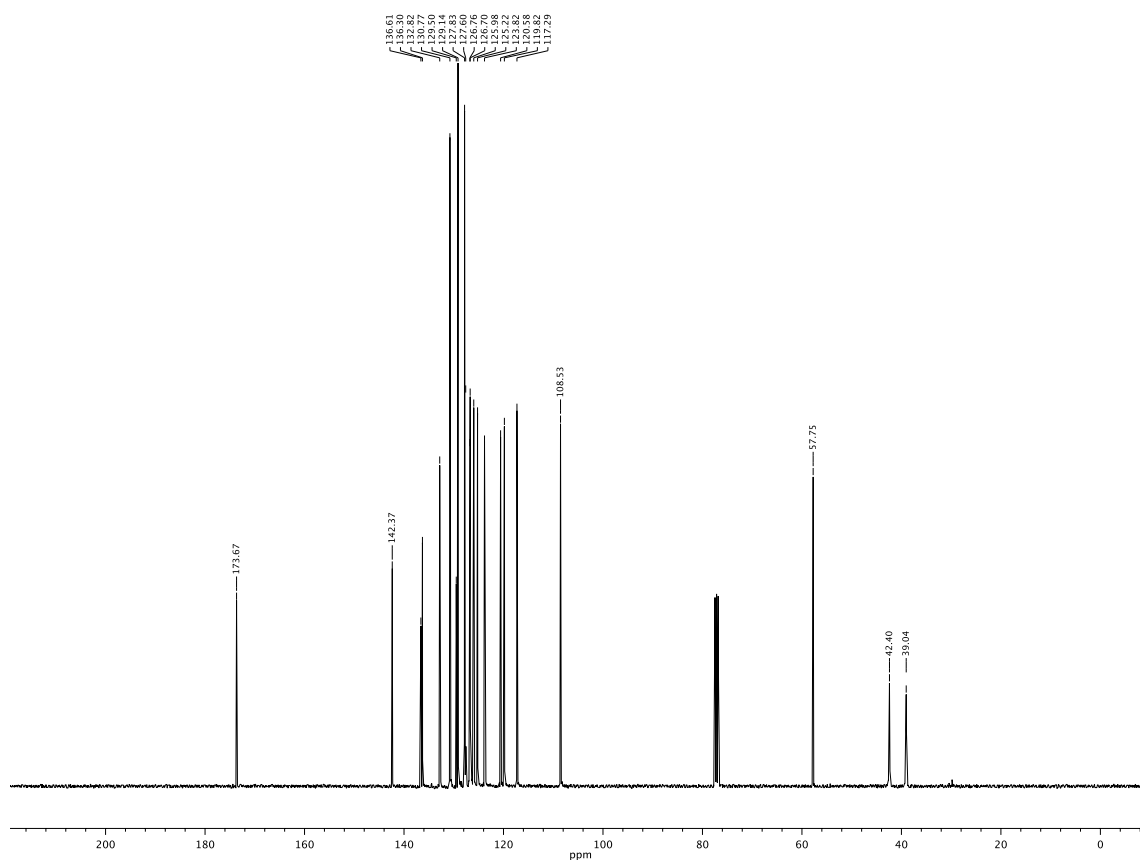


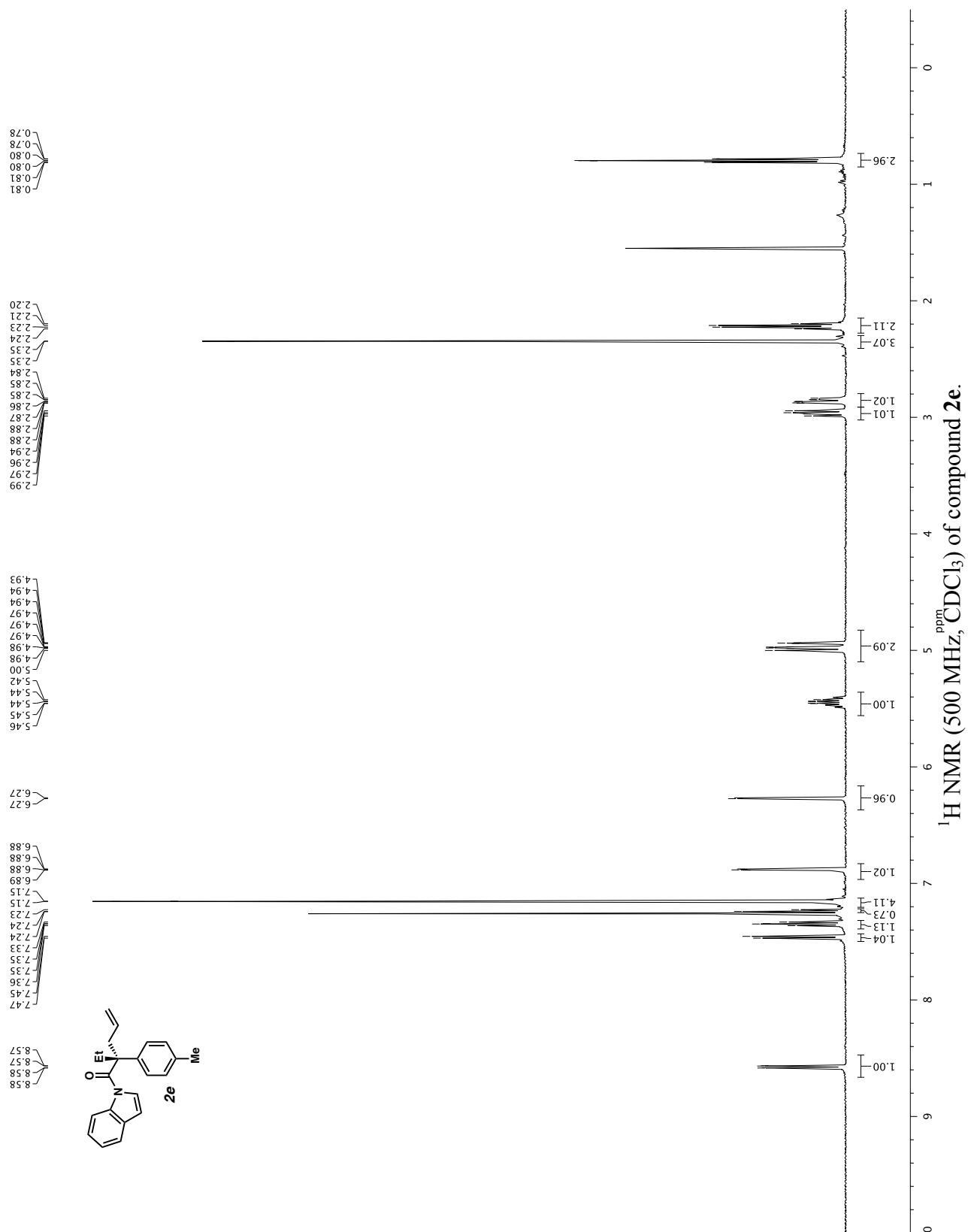


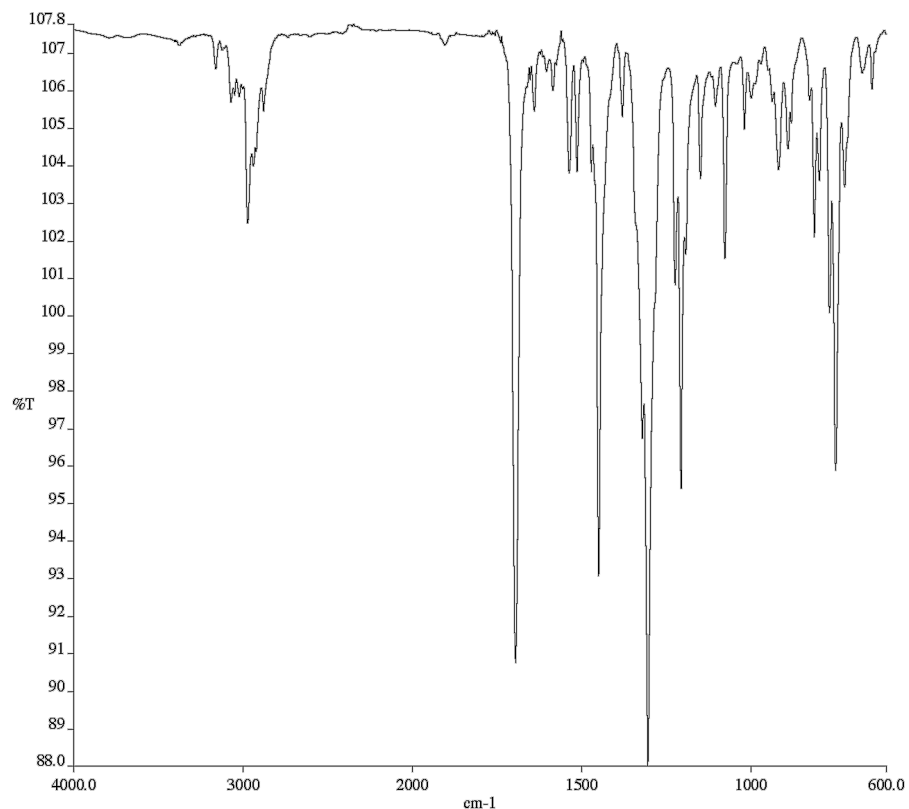
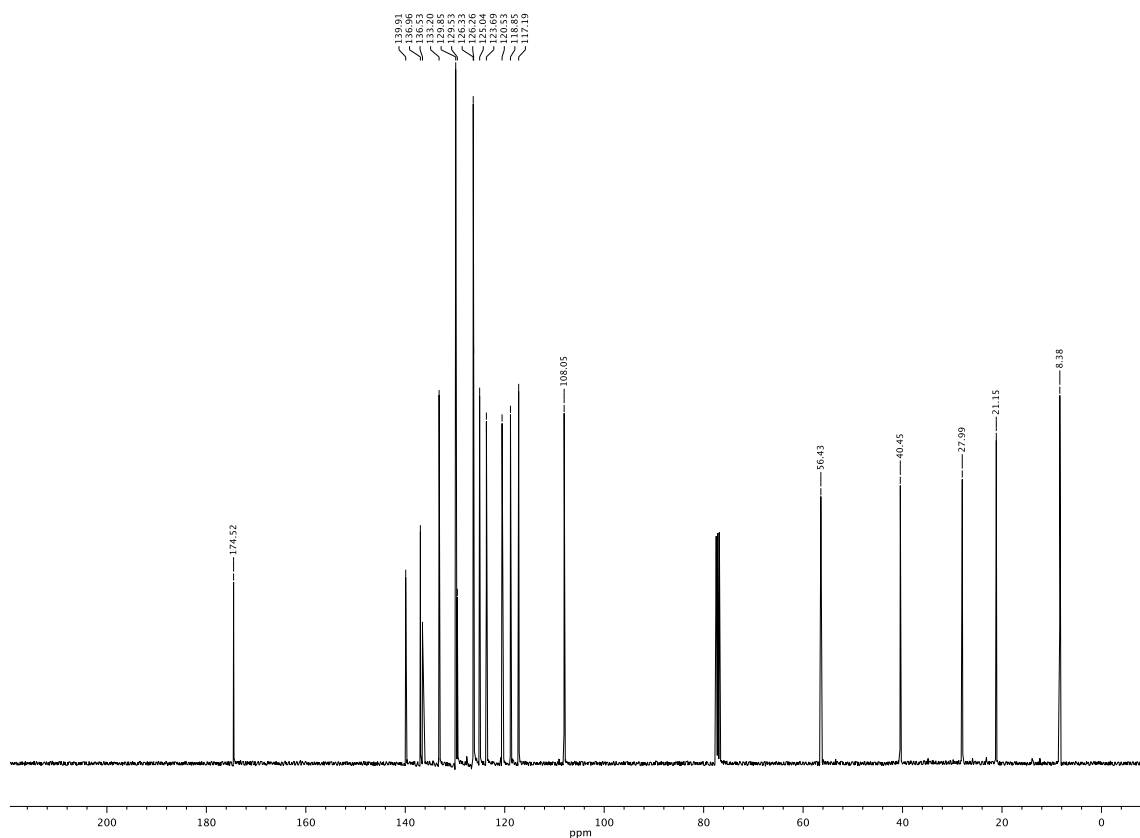


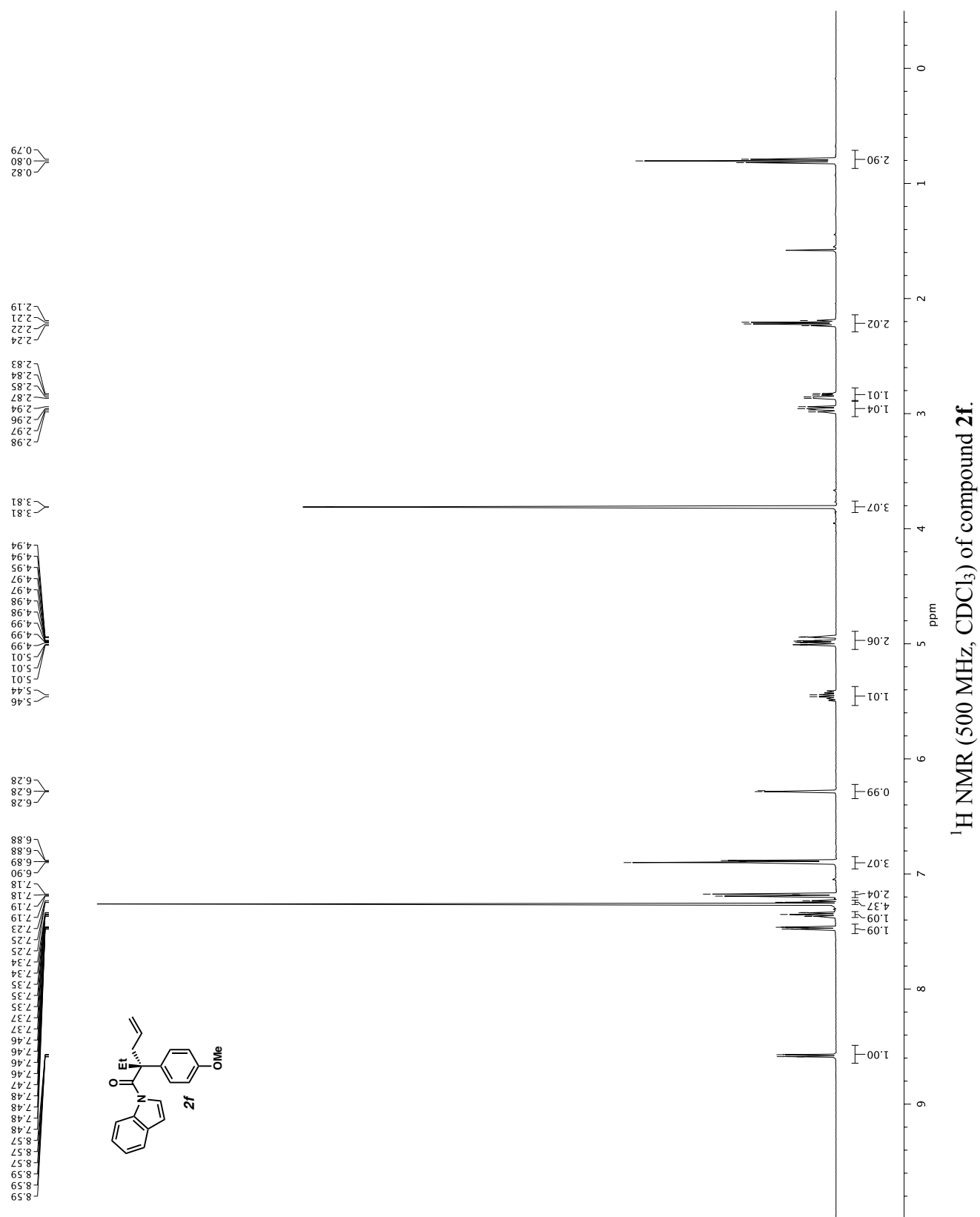
Infrared spectrum (Thin Film, NaCl) of compound **2c**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2c**.

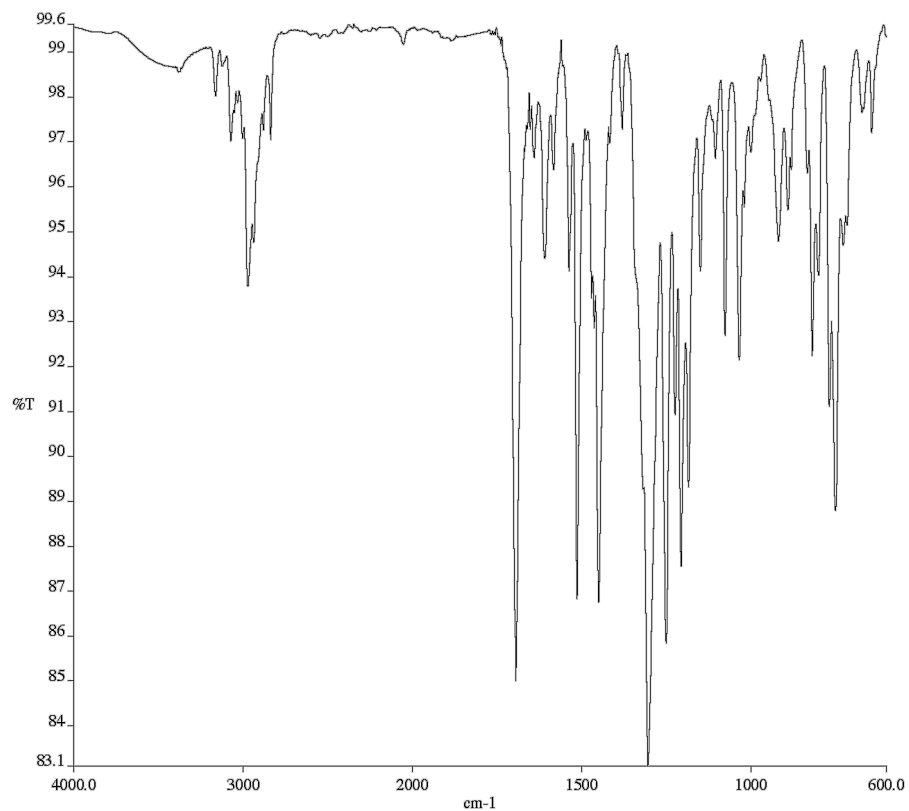
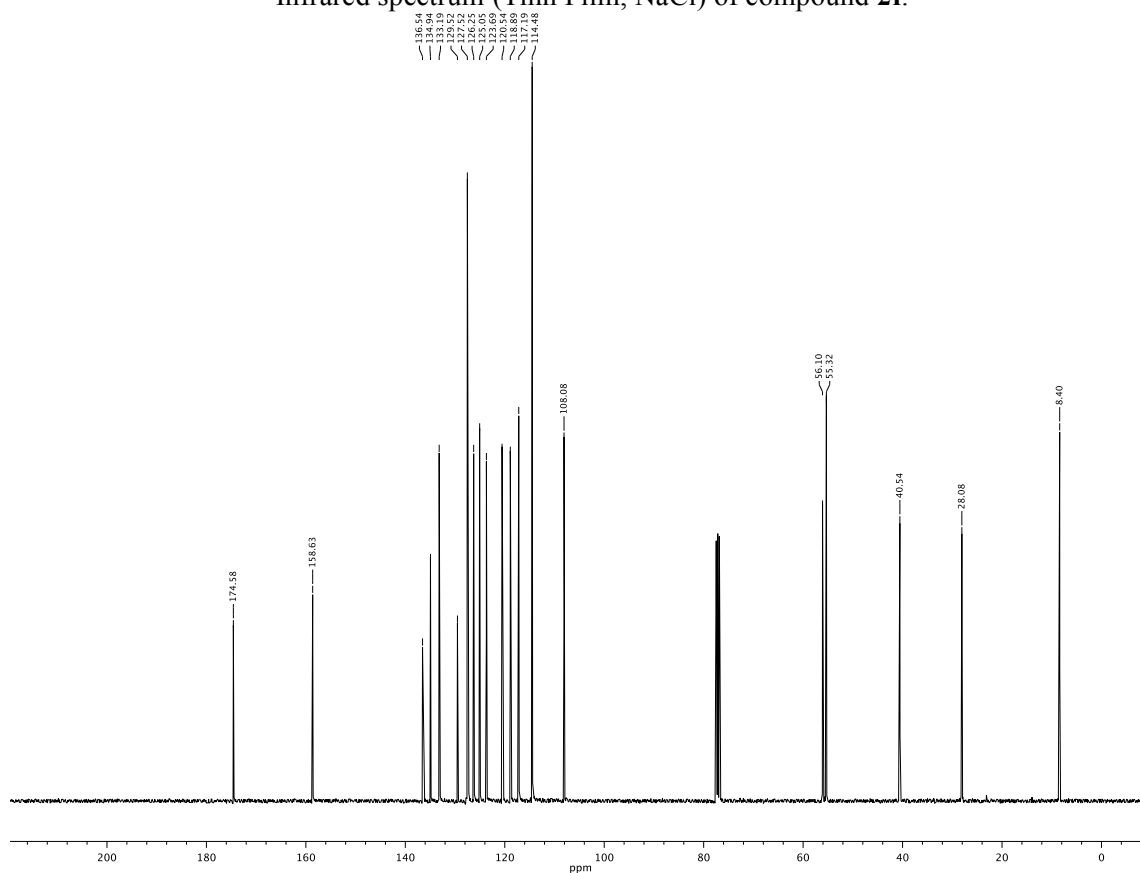


Infrared spectrum (Thin Film, NaCl) of compound **2d**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2d**.

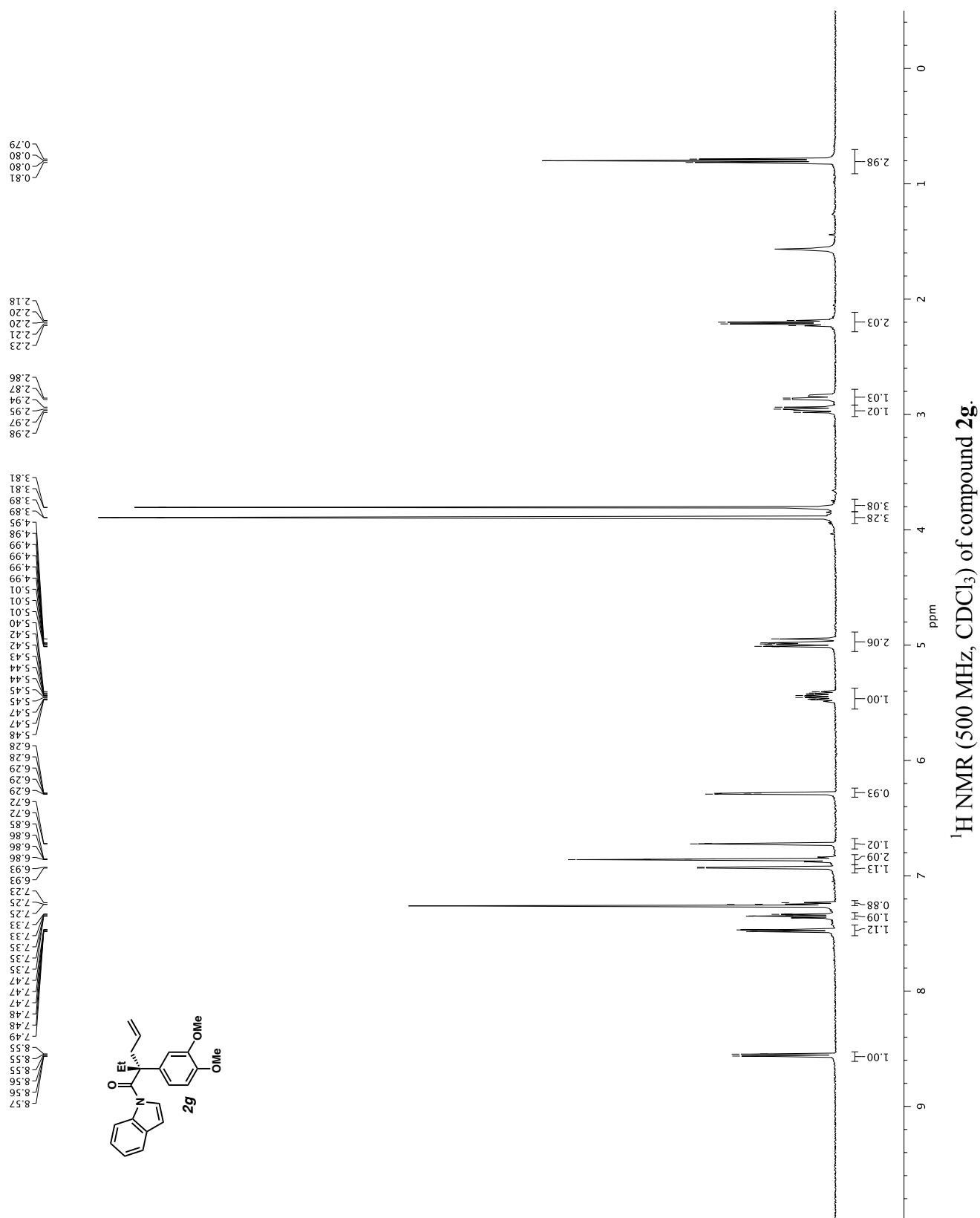


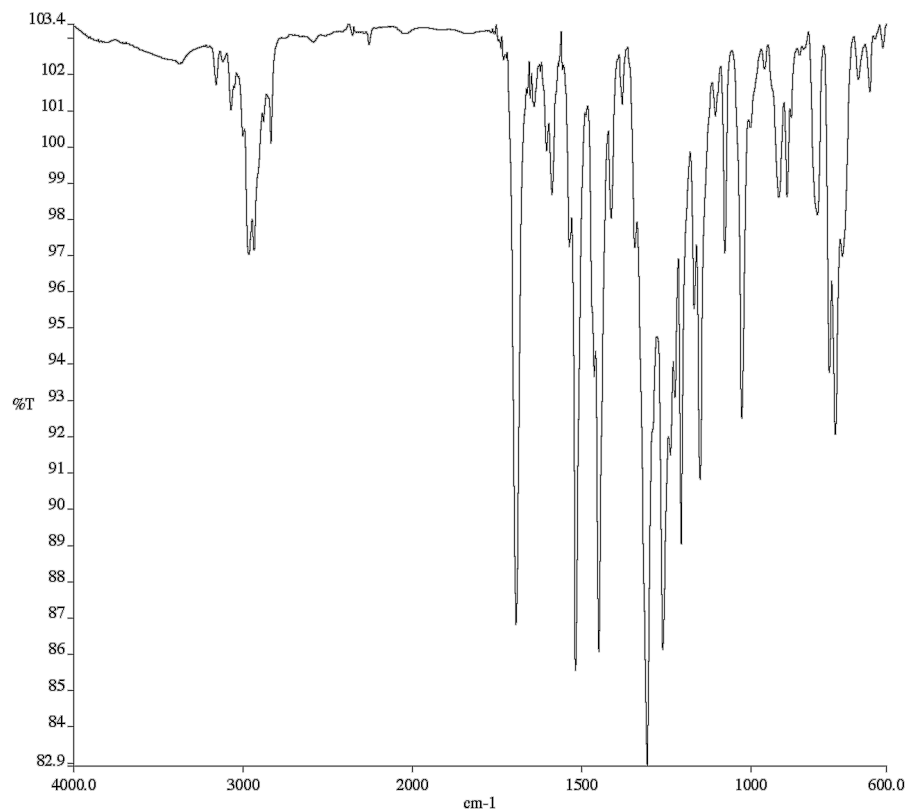
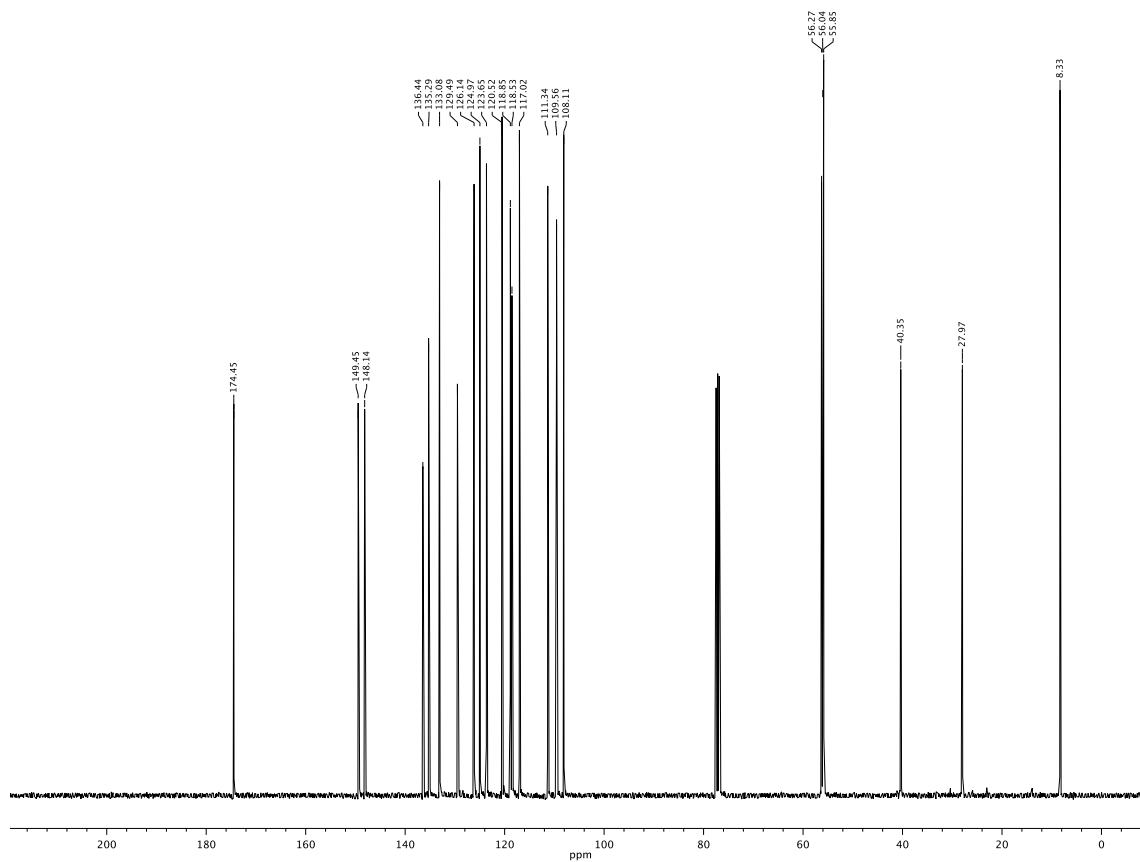
Infrared spectrum (Thin Film, NaCl) of compound **2e**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2e**.

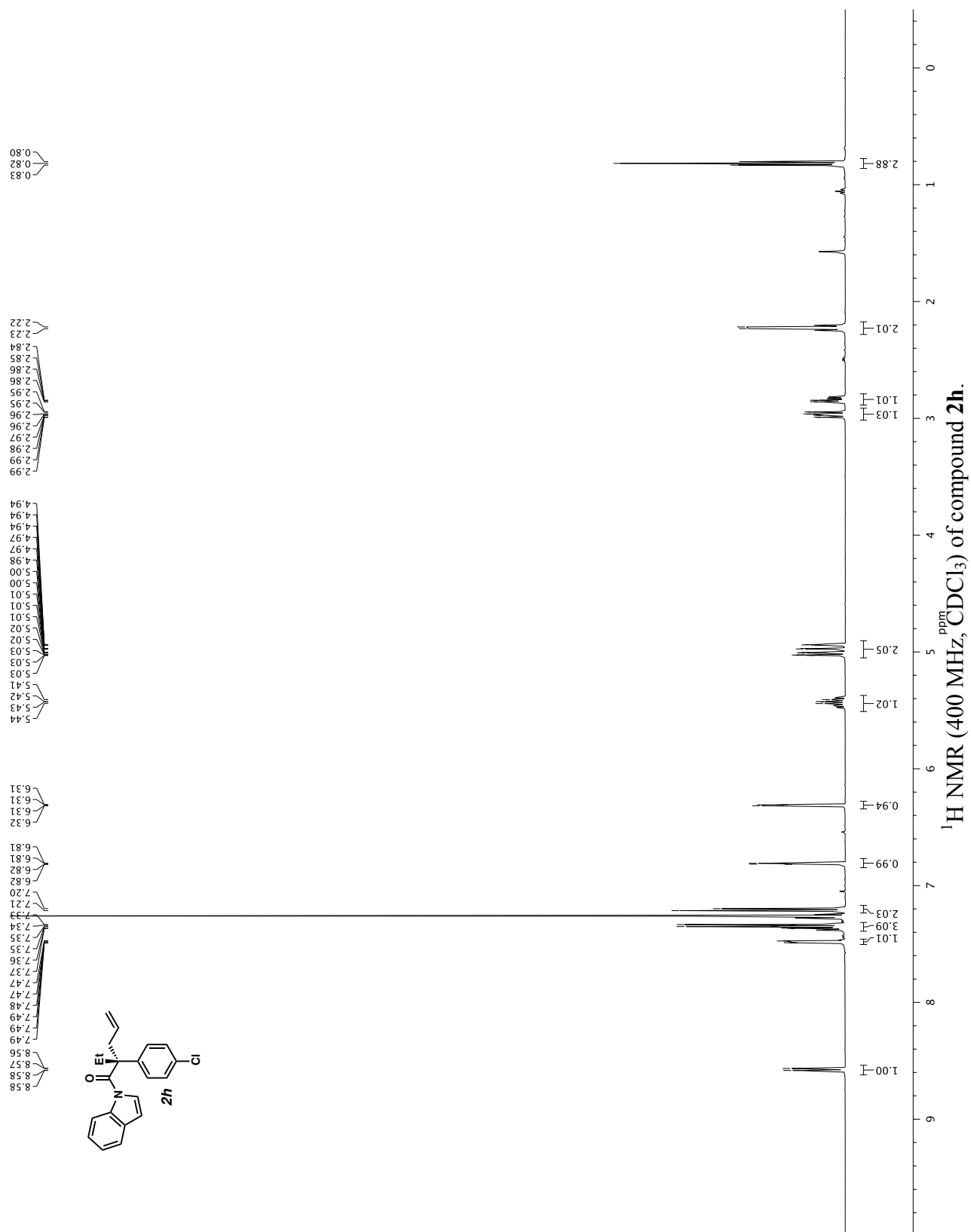


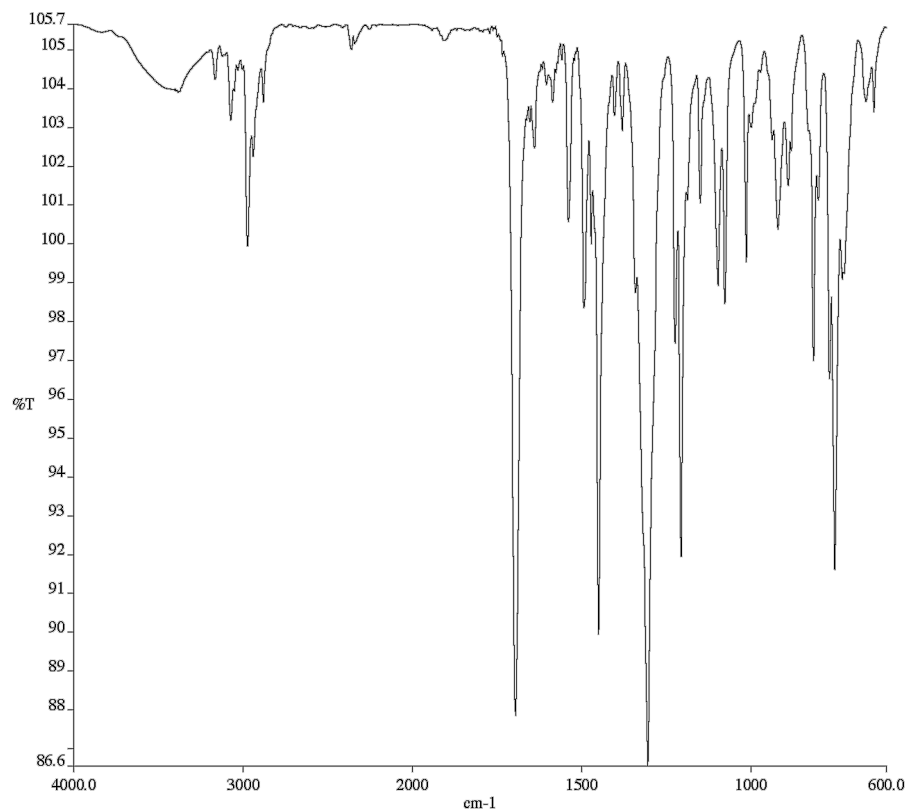
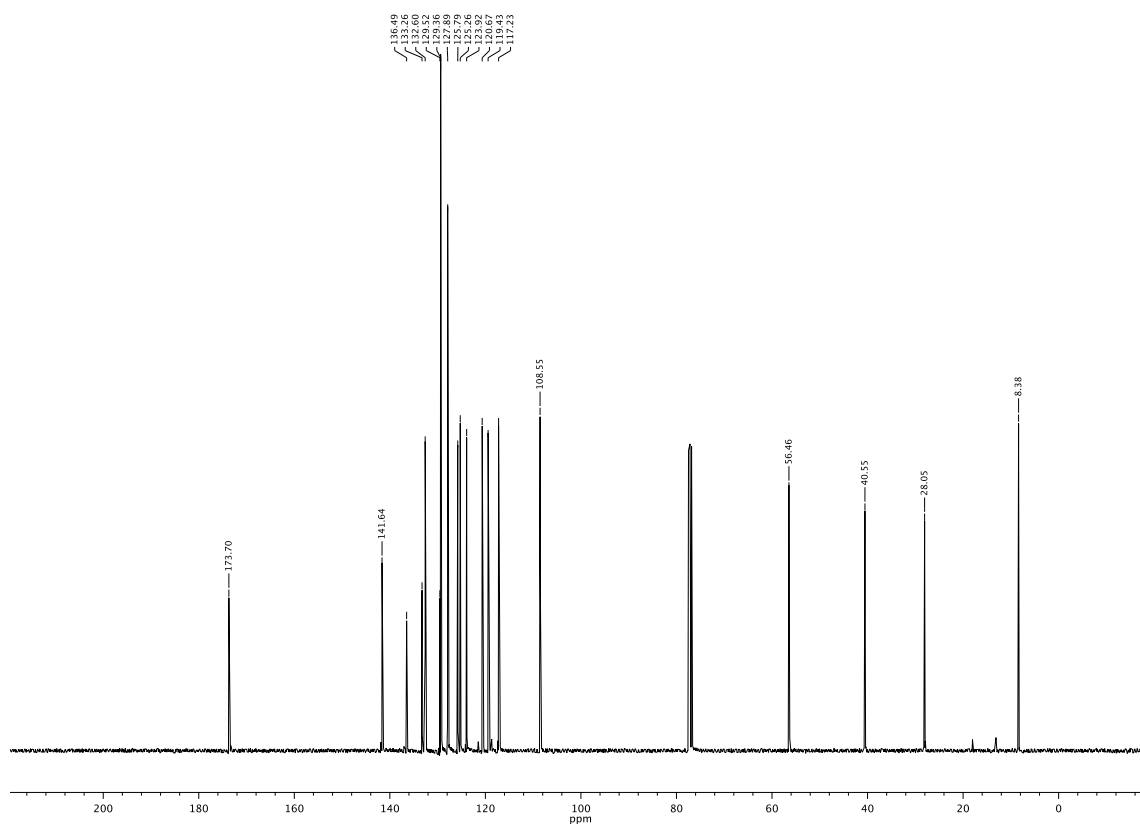
Infrared spectrum (Thin Film, NaCl) of compound **2f**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2f**.

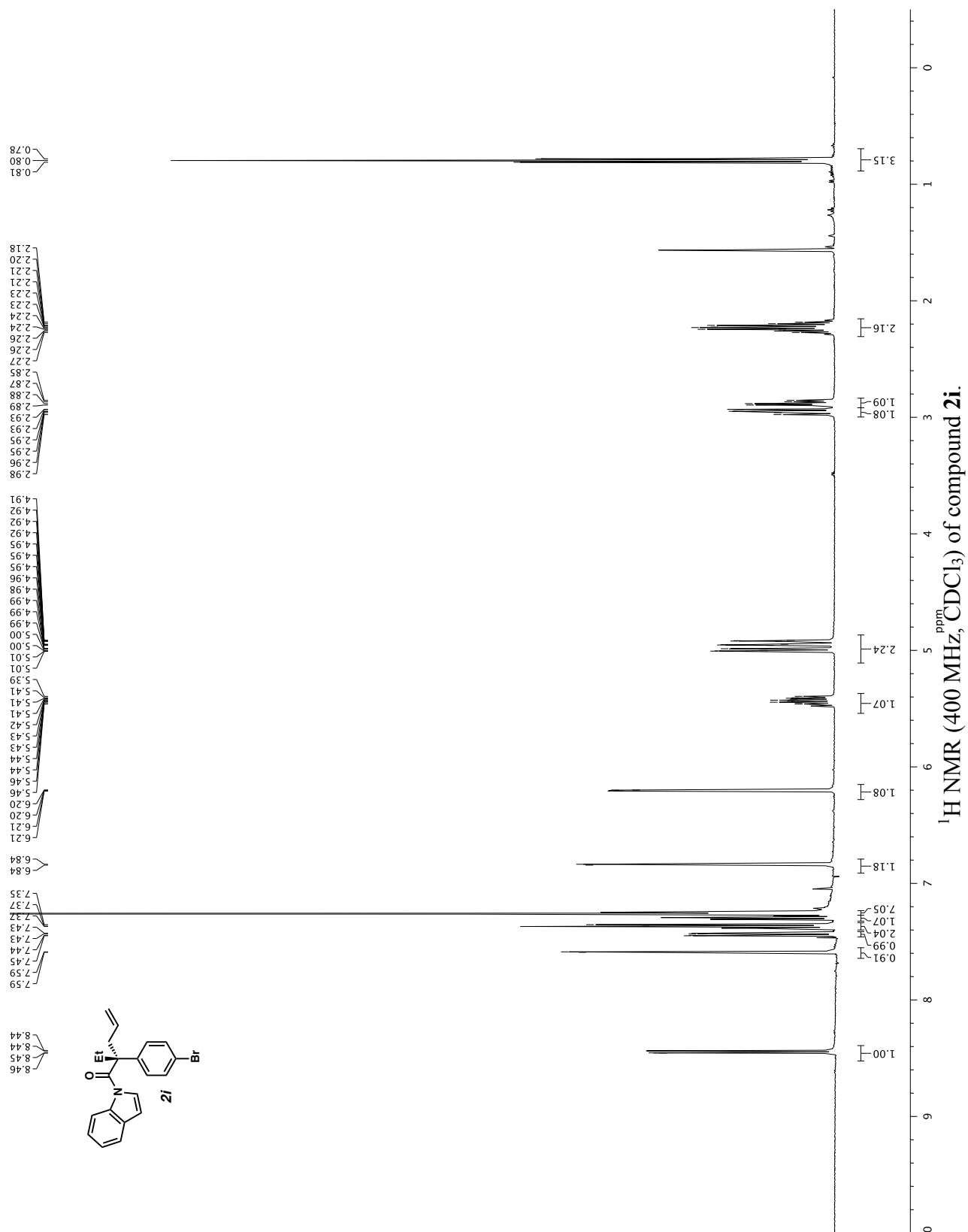


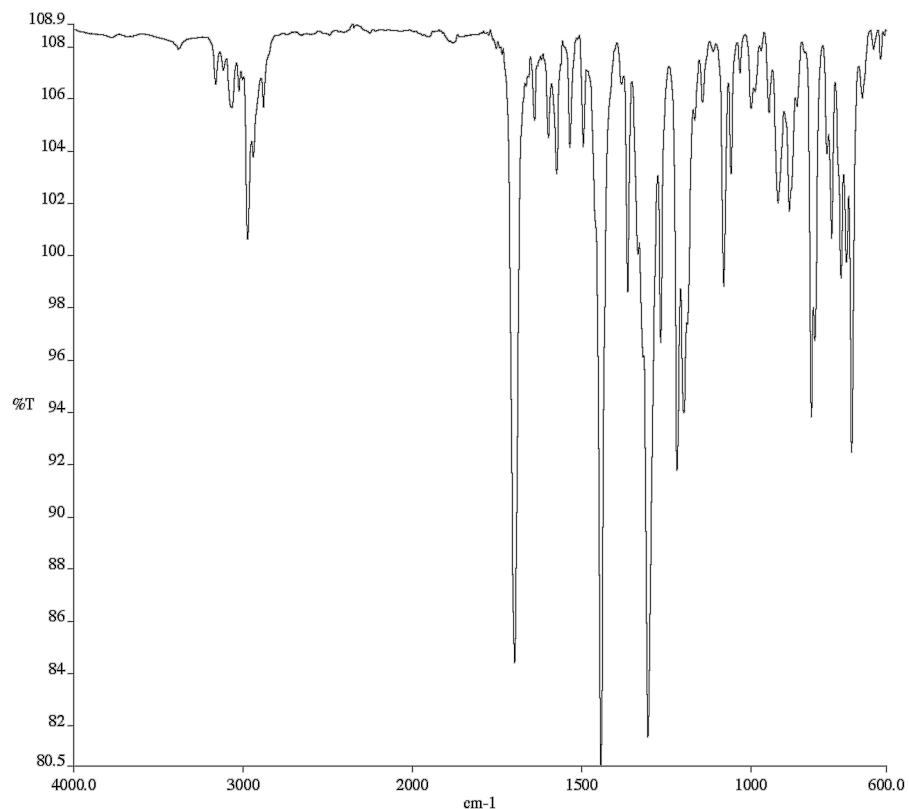
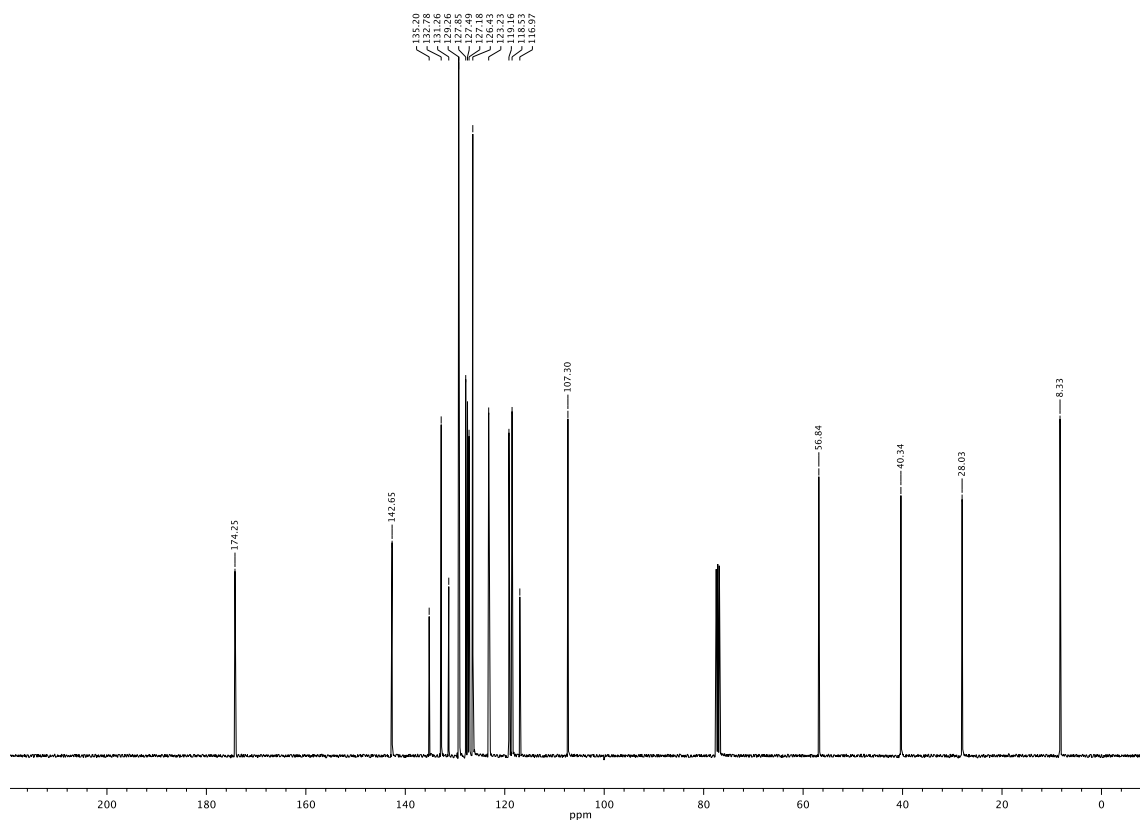


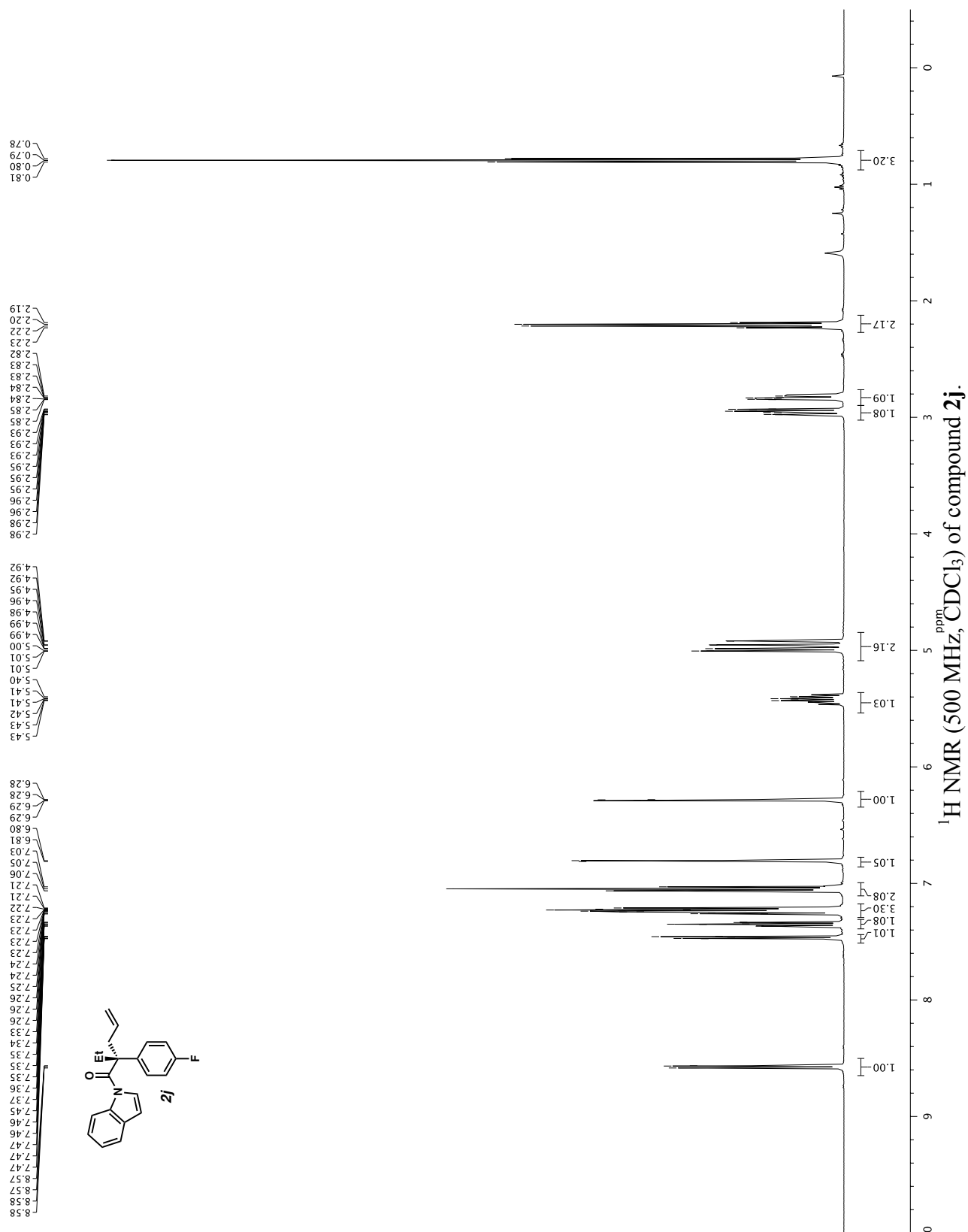
Infrared spectrum (Thin Film, NaCl) of compound **2g**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2g**.

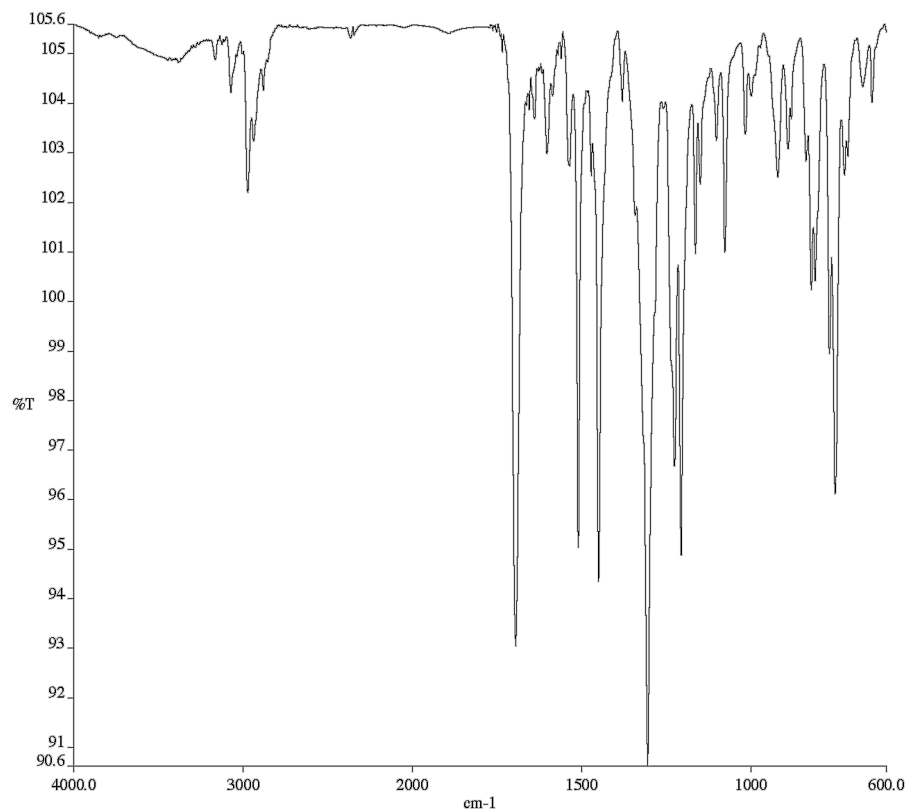
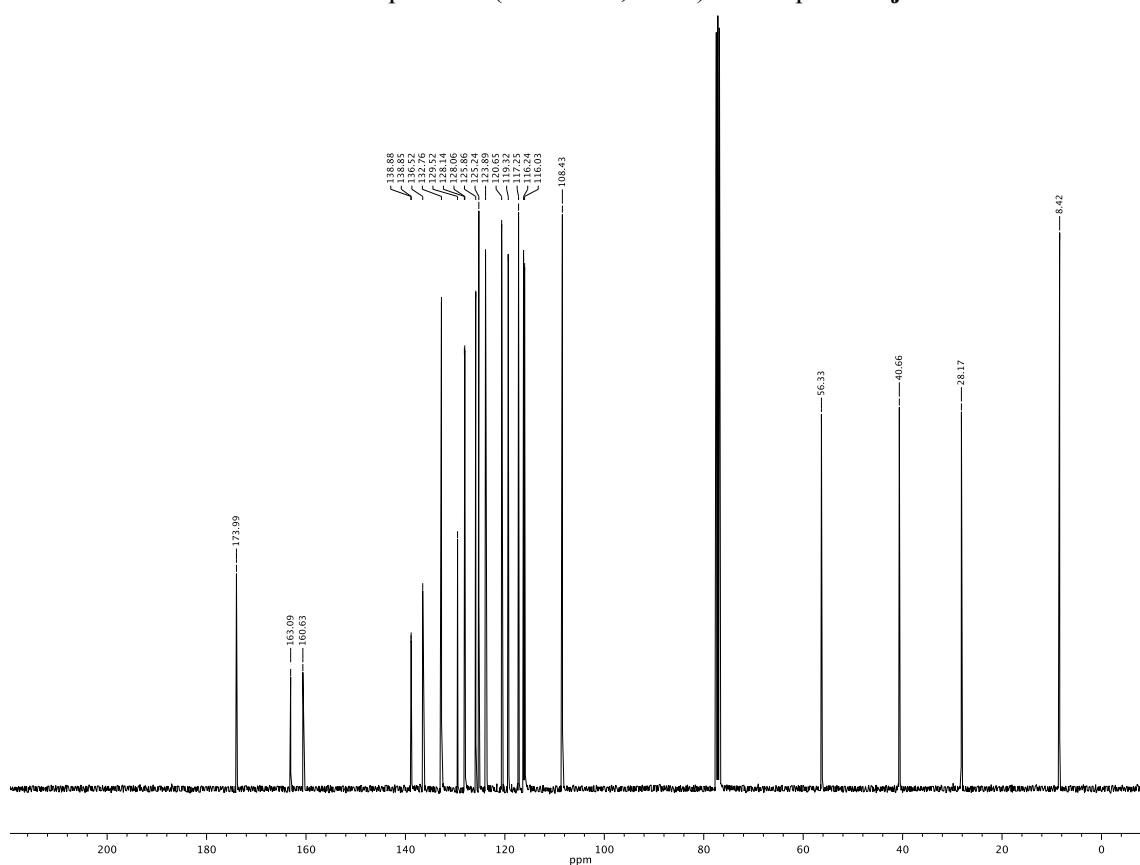


Infrared spectrum (Thin Film, NaCl) of compound **2h**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2h**.



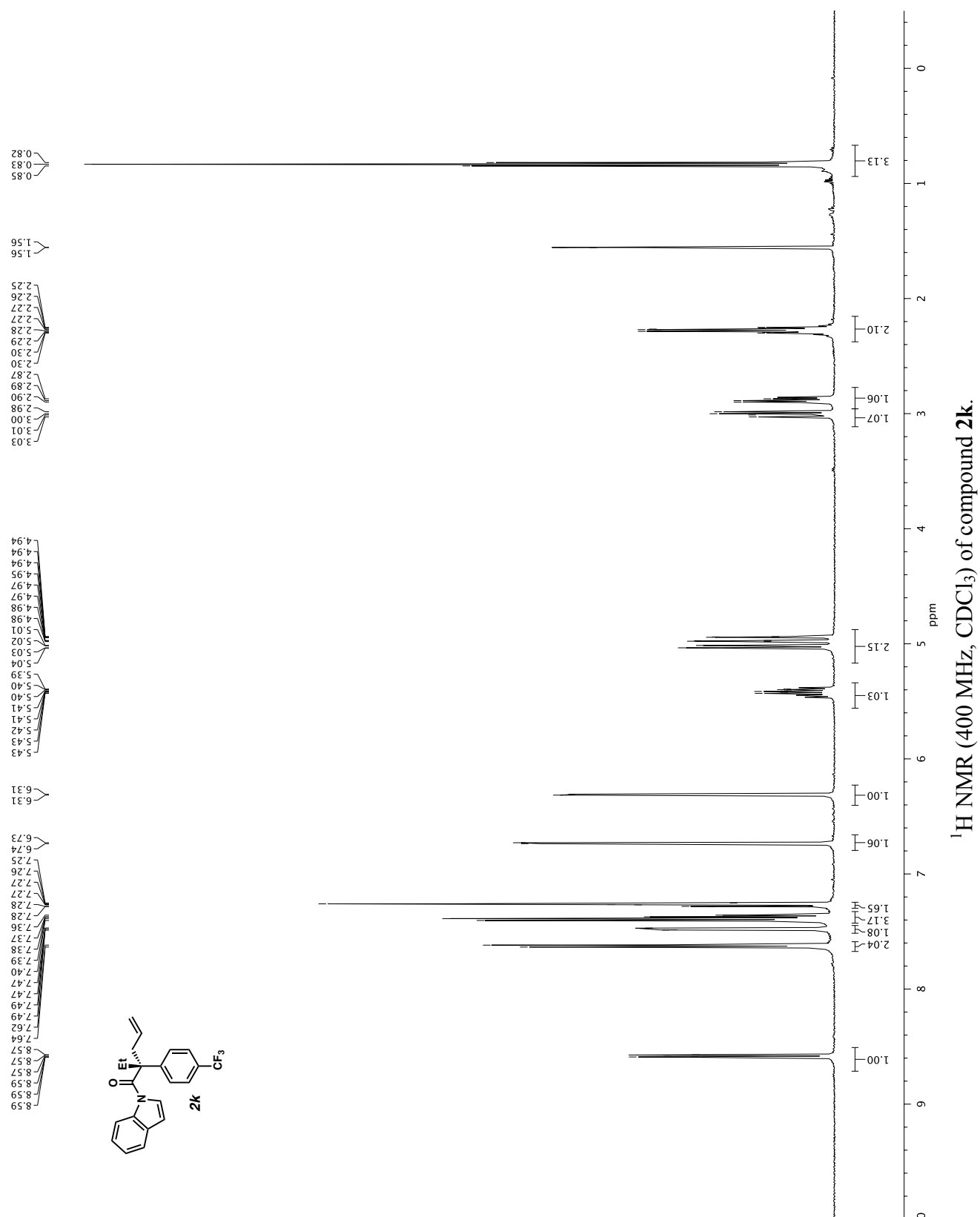
Infrared spectrum (Thin Film, NaCl) of compound **2i**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2i**.

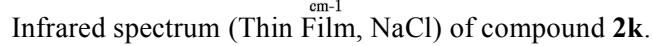


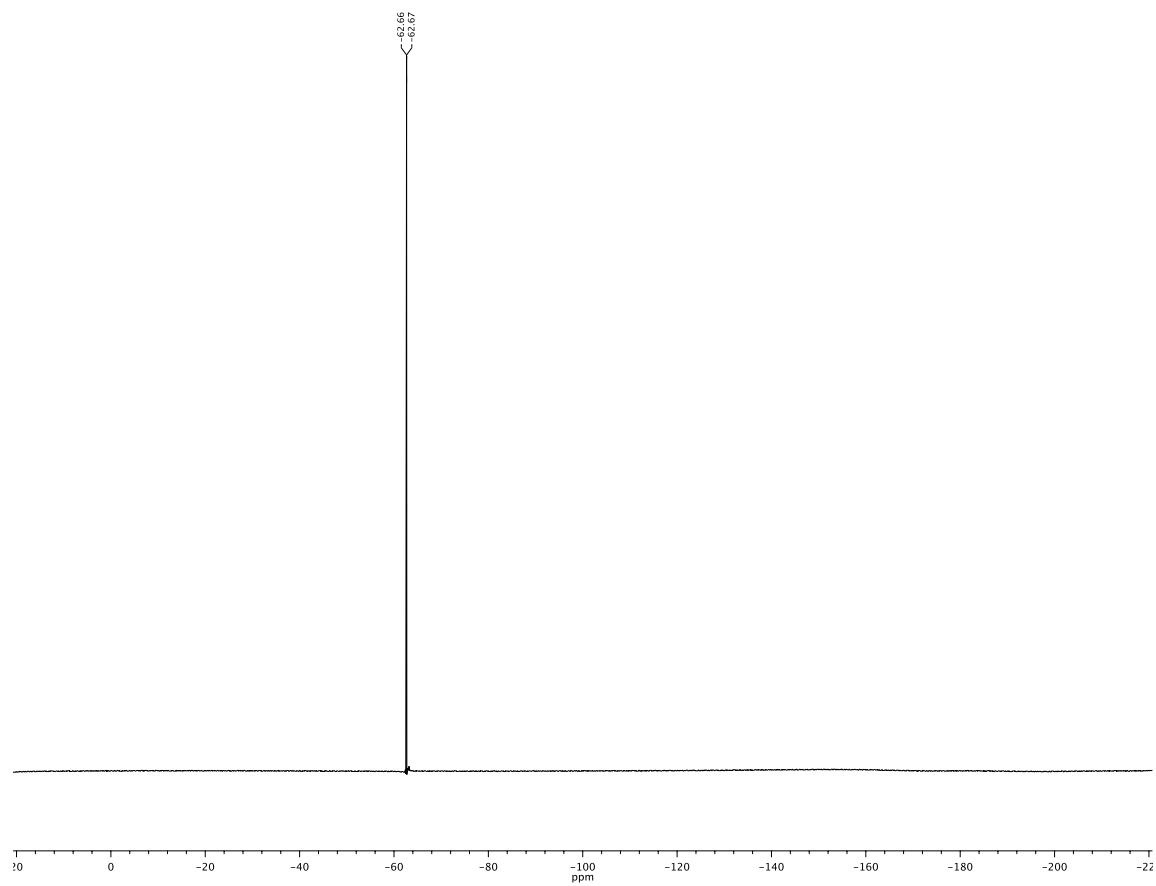
Infrared spectrum (Thin Film, NaCl) of compound **2j**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2j**.

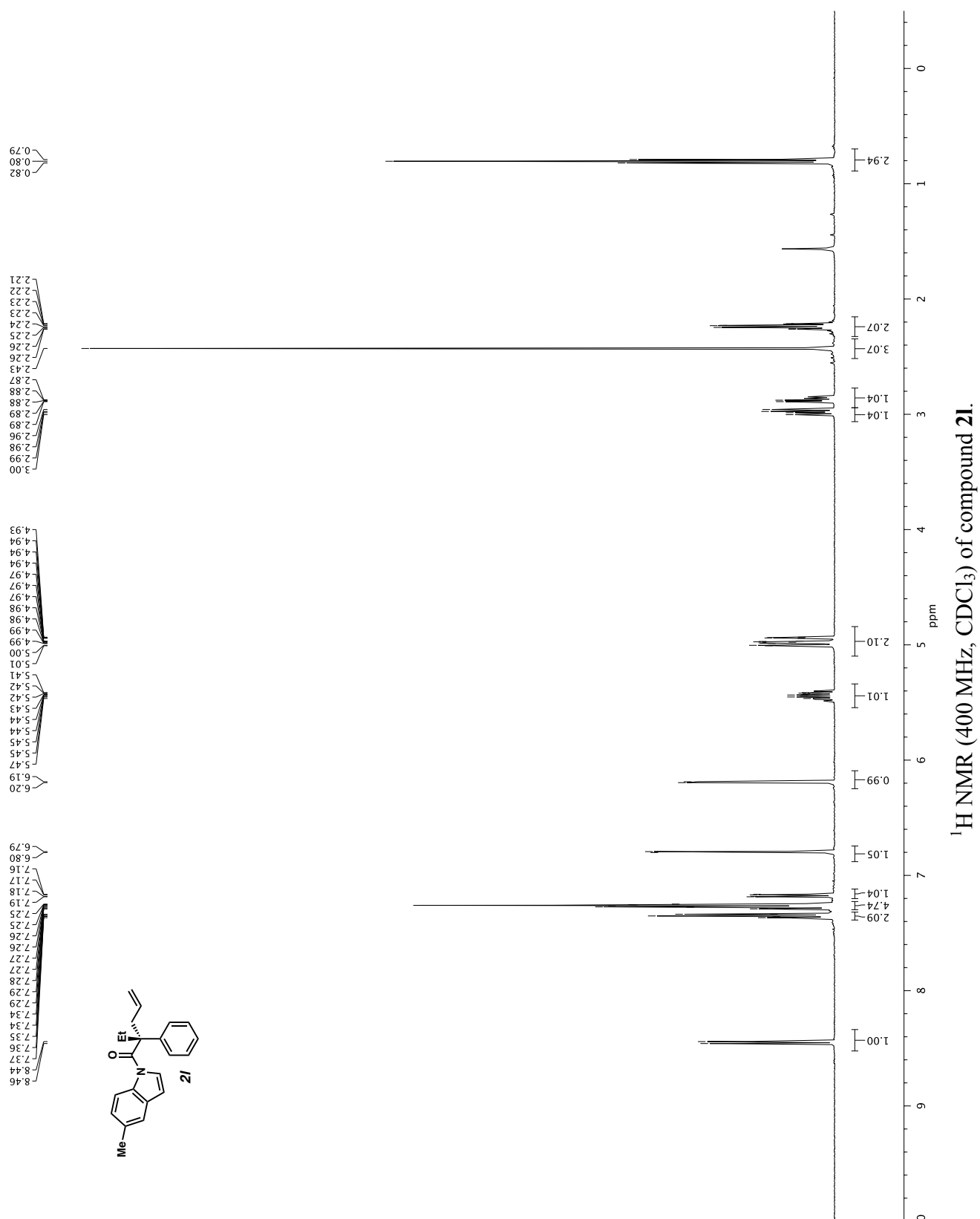


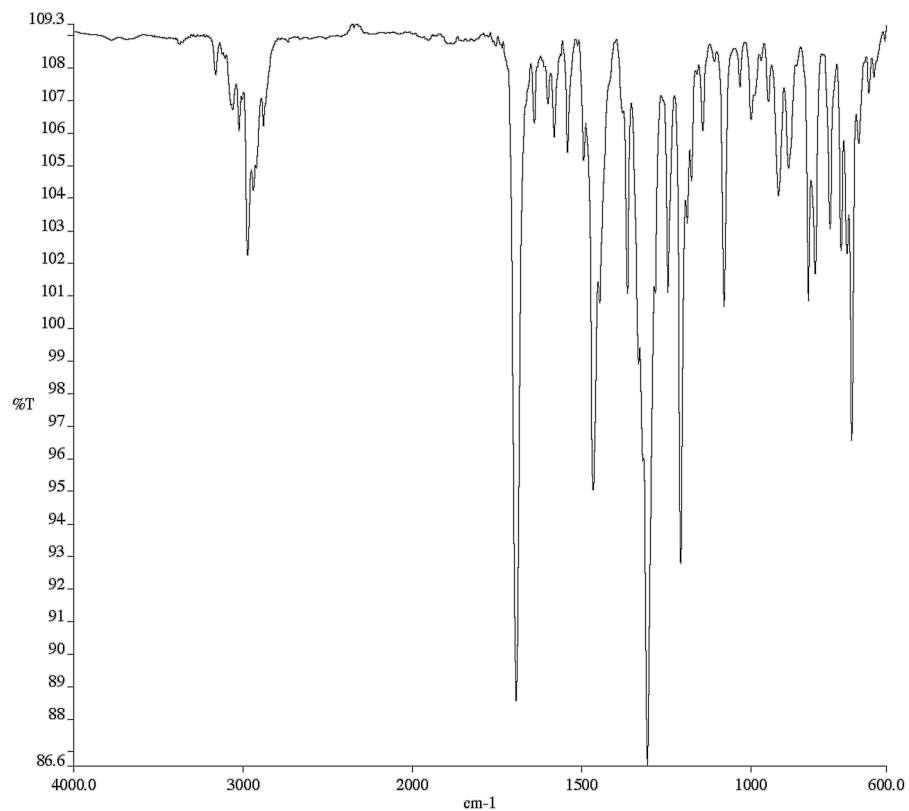
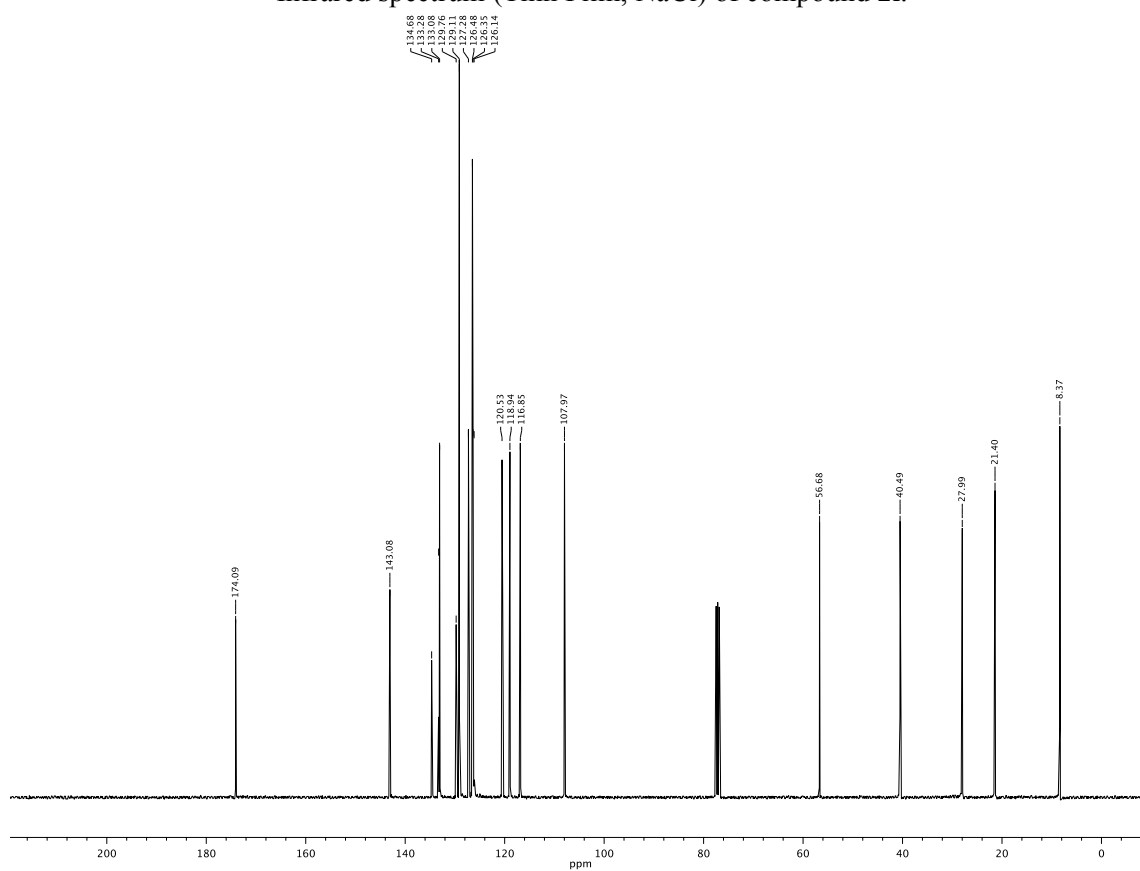


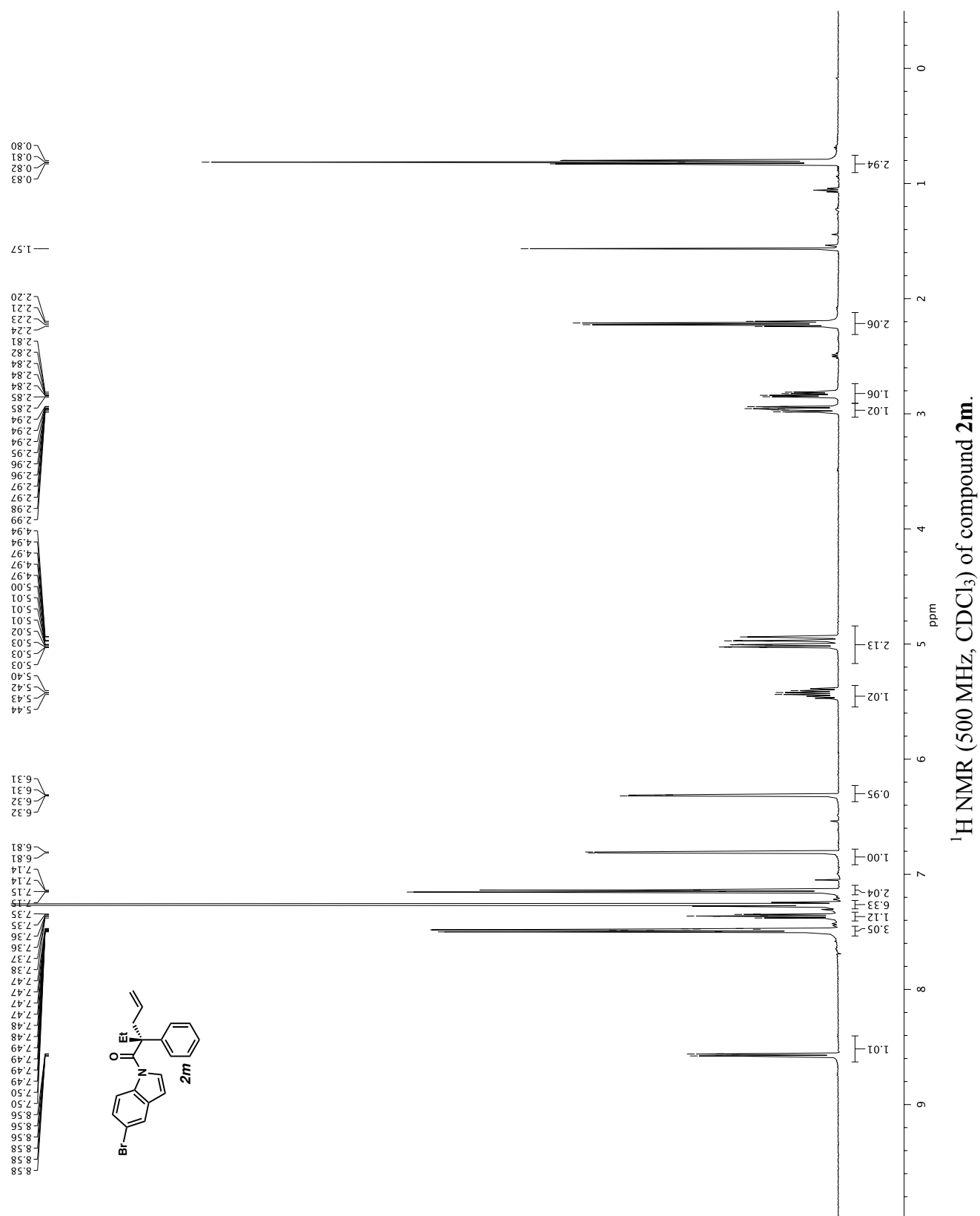


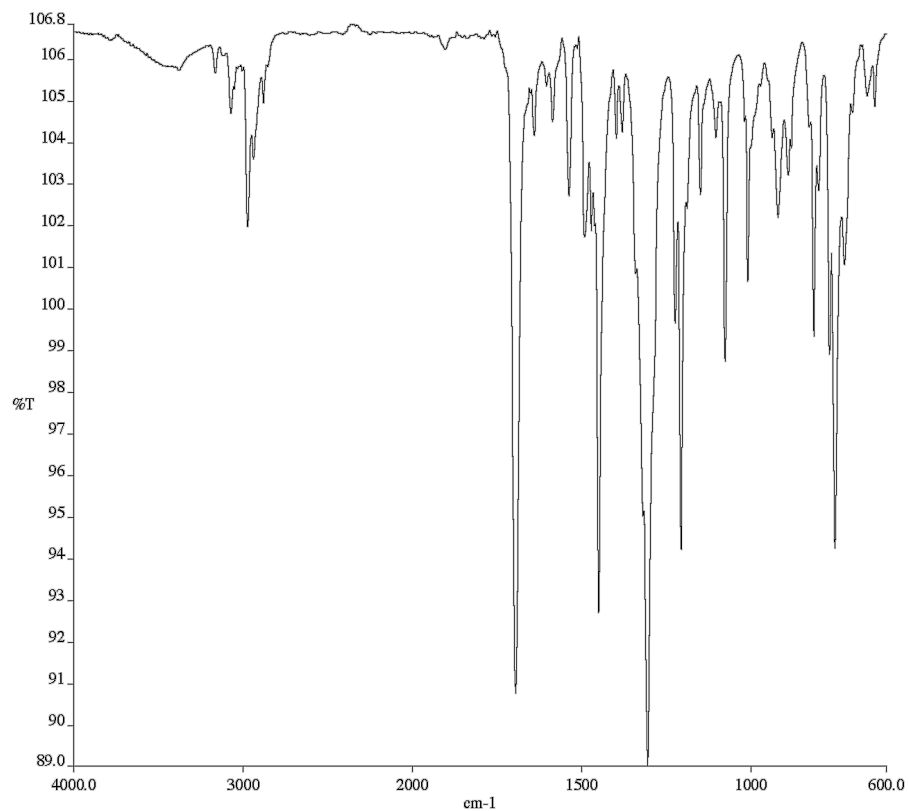
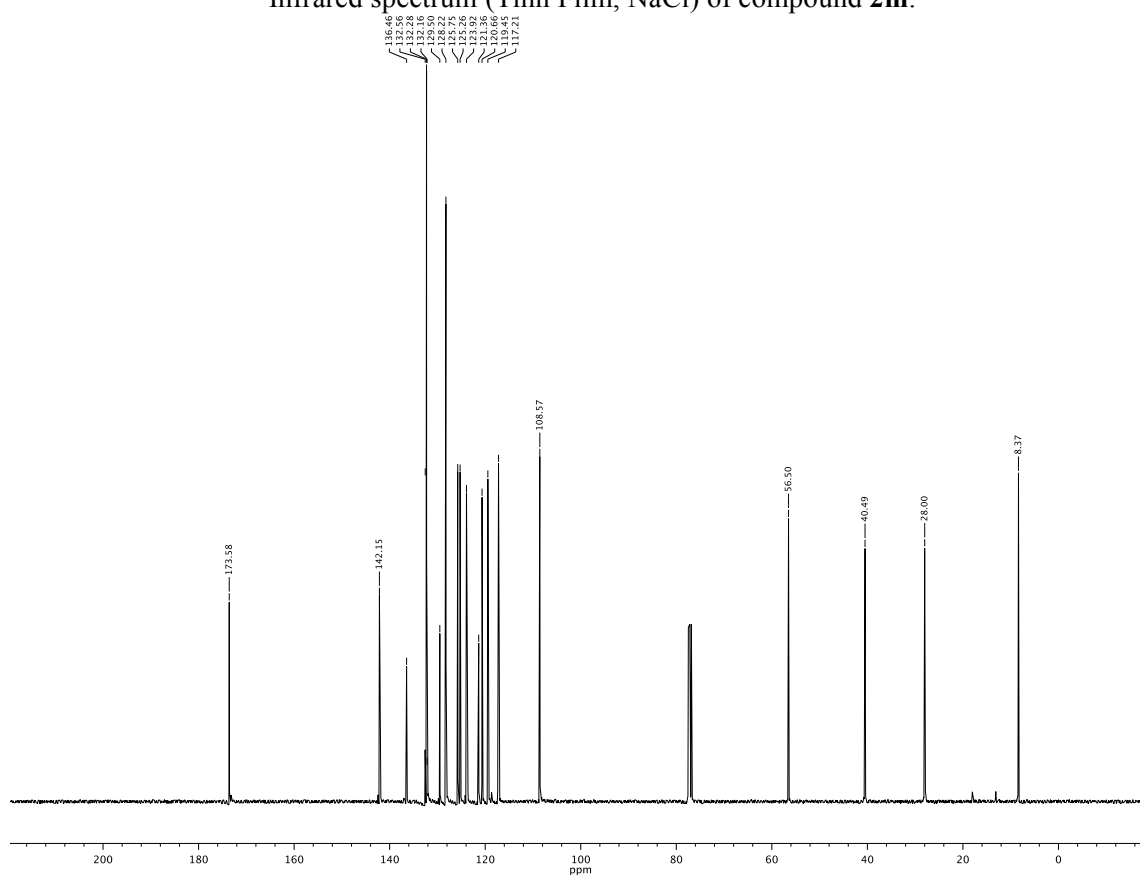


 $^{19}\text{F}$  NMR (376 MHz,  $\text{CDCl}_3$ ) of compound **2k**.

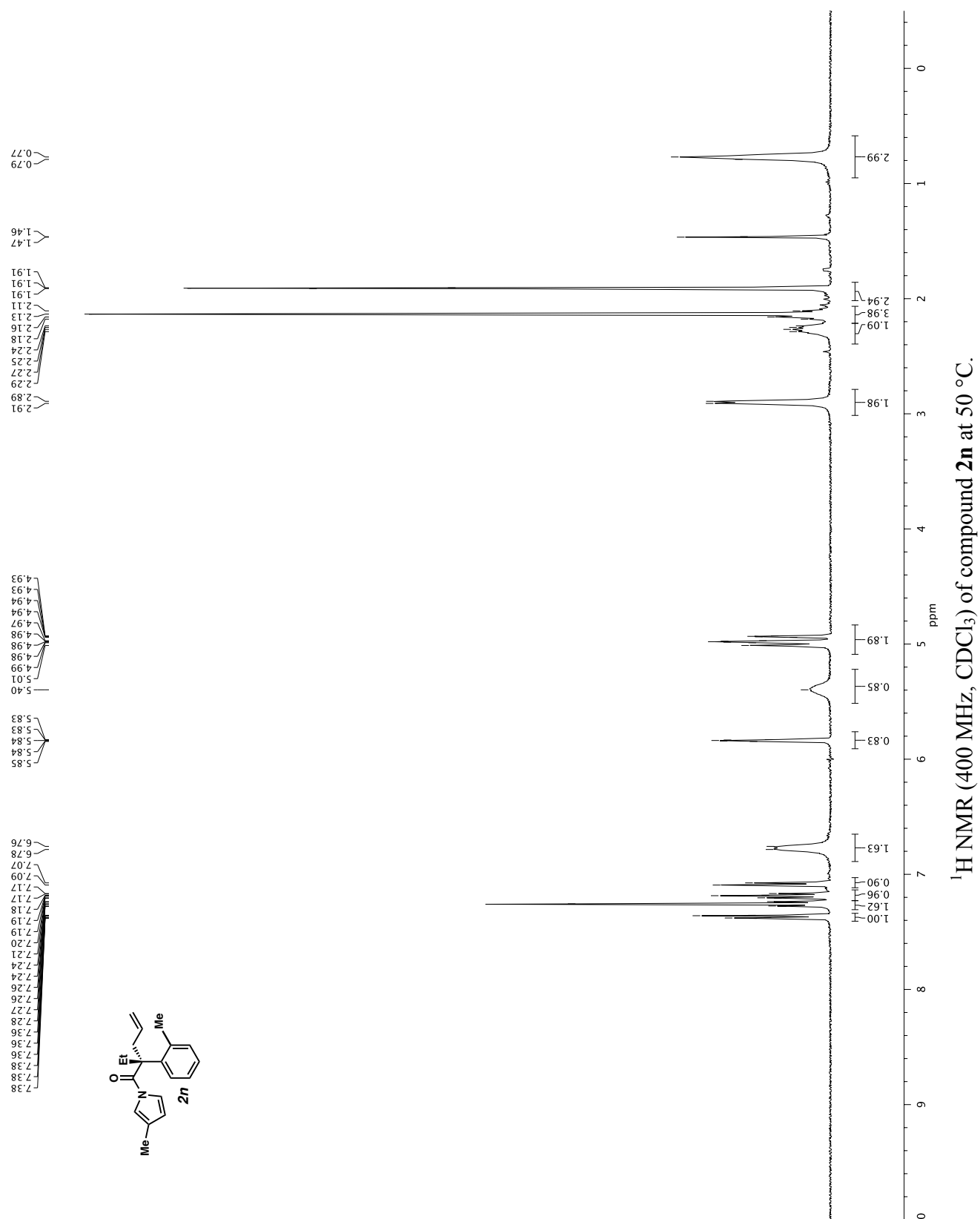


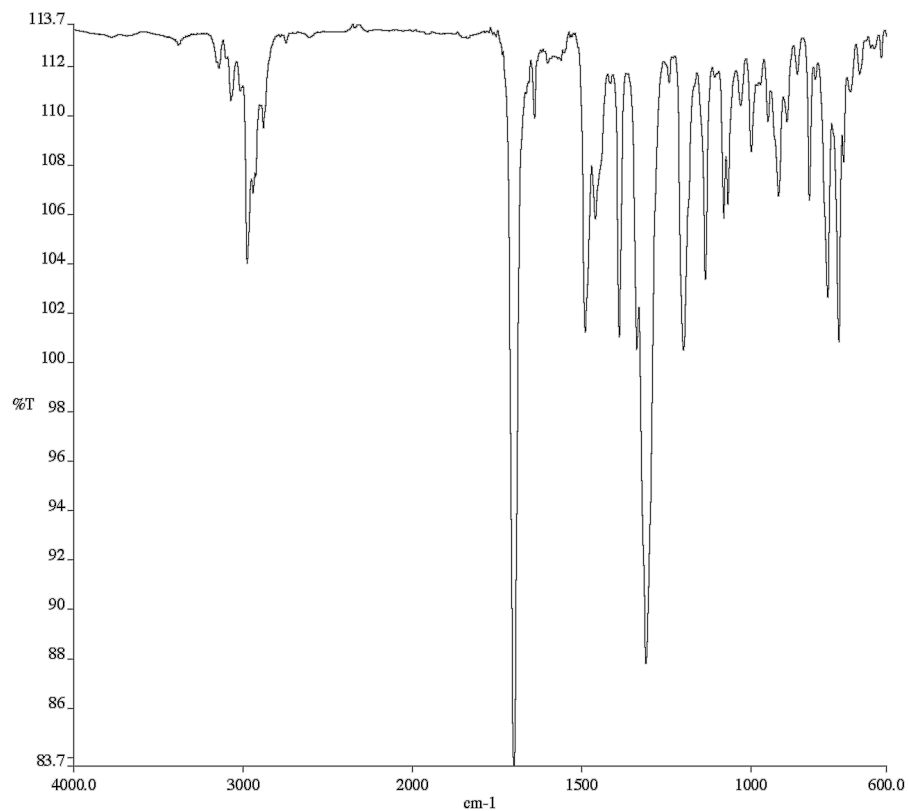
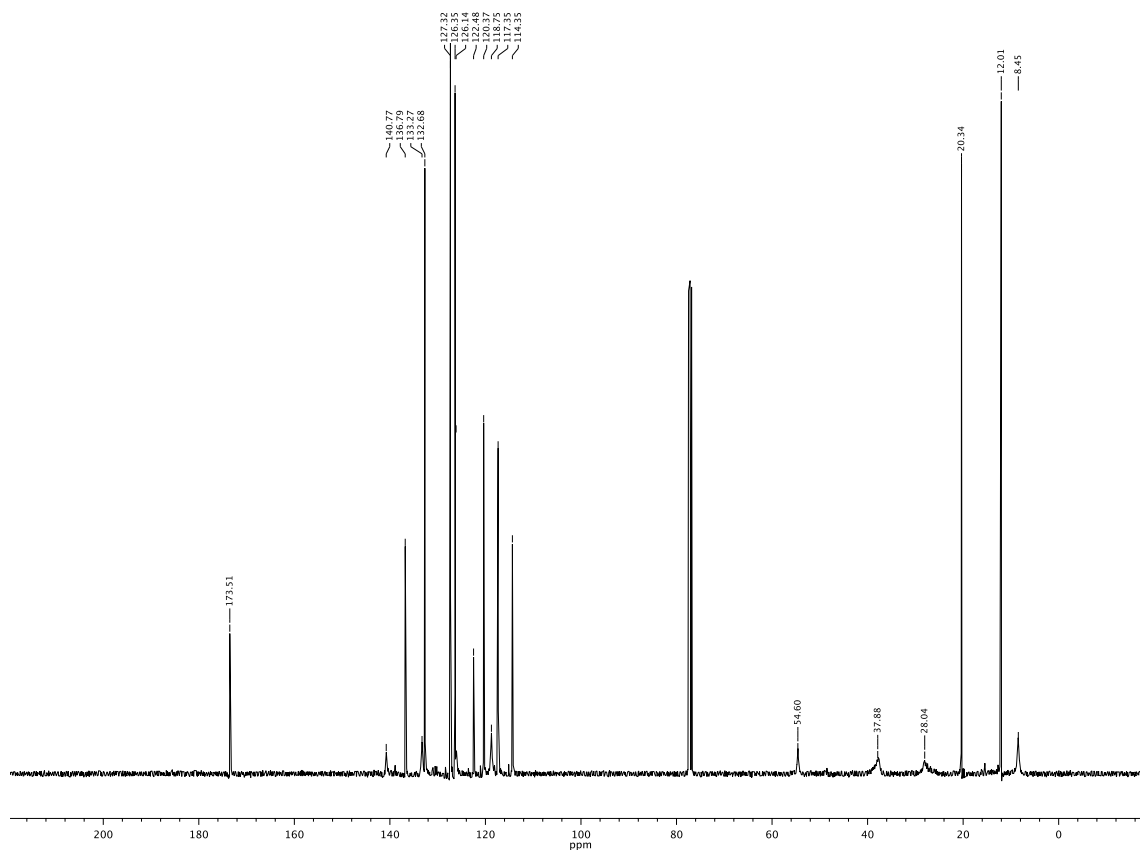
Infrared spectrum (Thin Film, NaCl) of compound **21**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **21**.

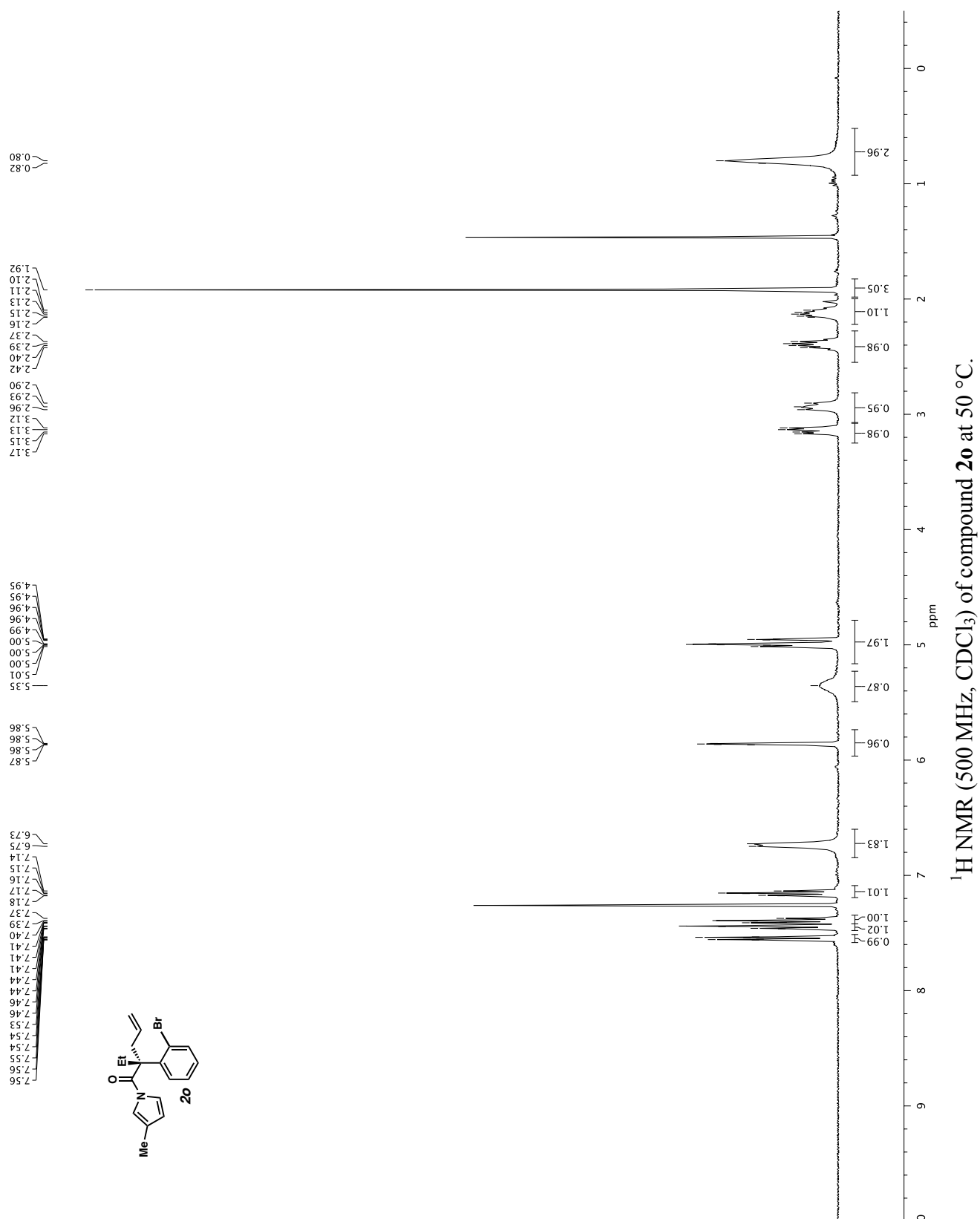


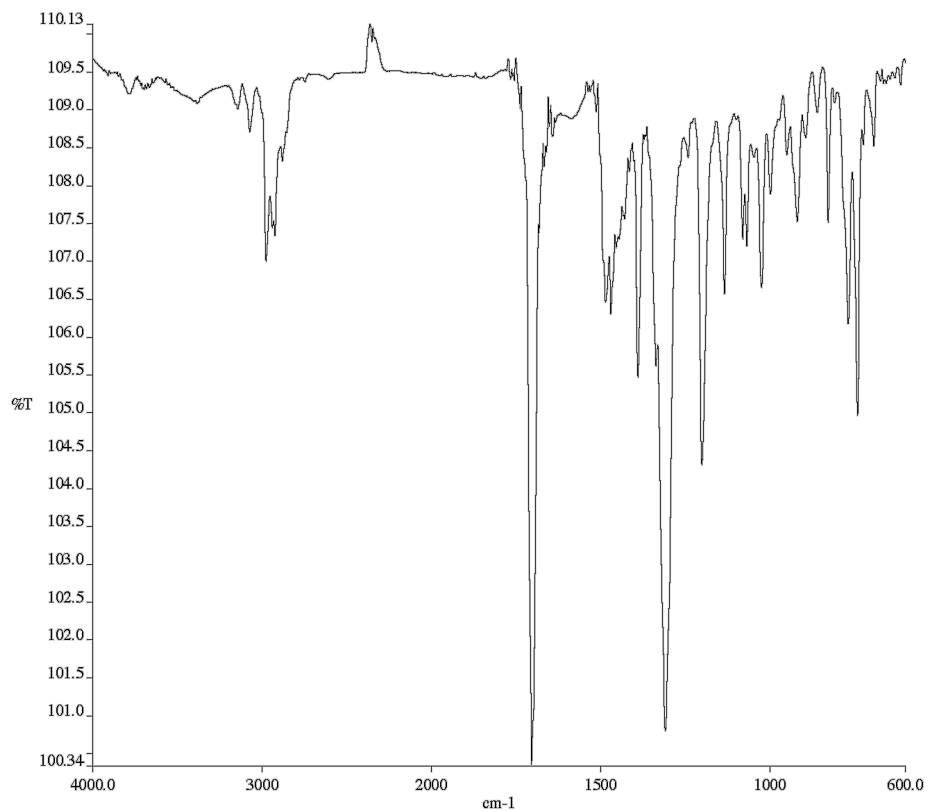
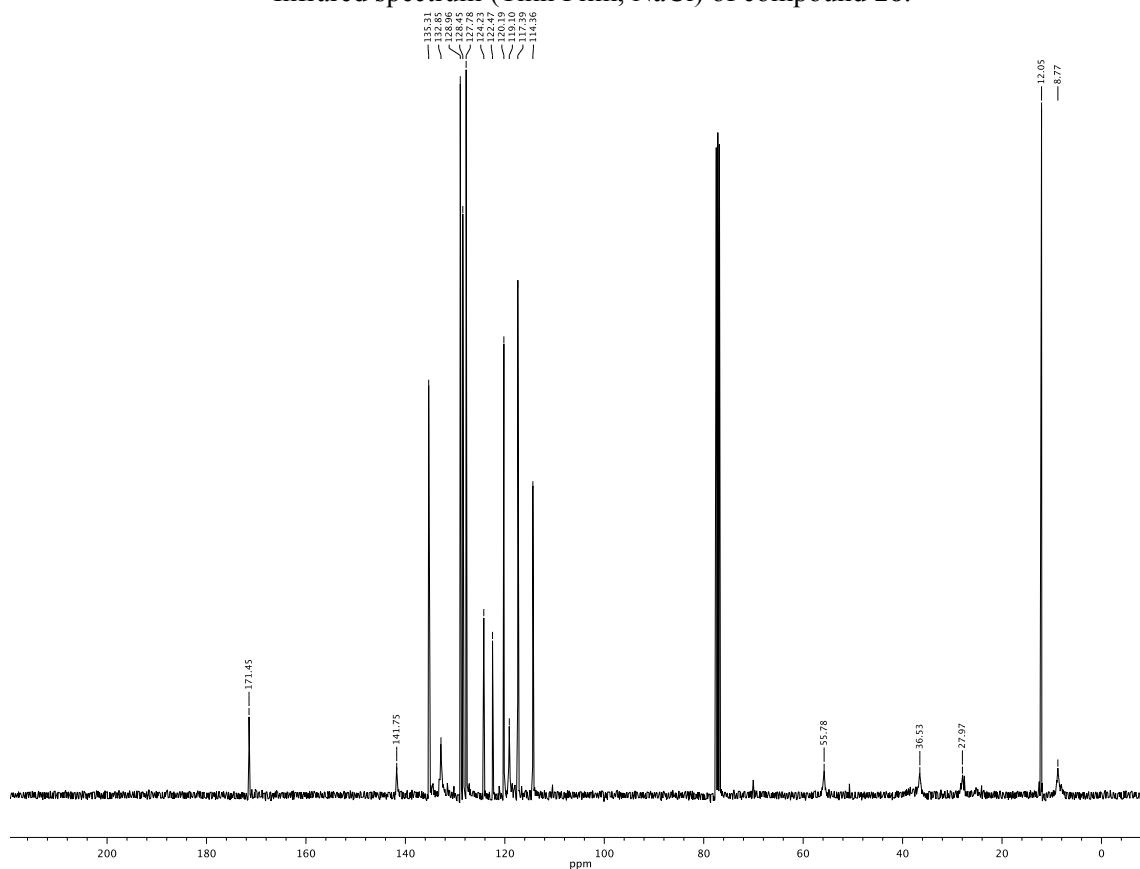
Infrared spectrum (Thin Film, NaCl) of compound **2m**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2m**.

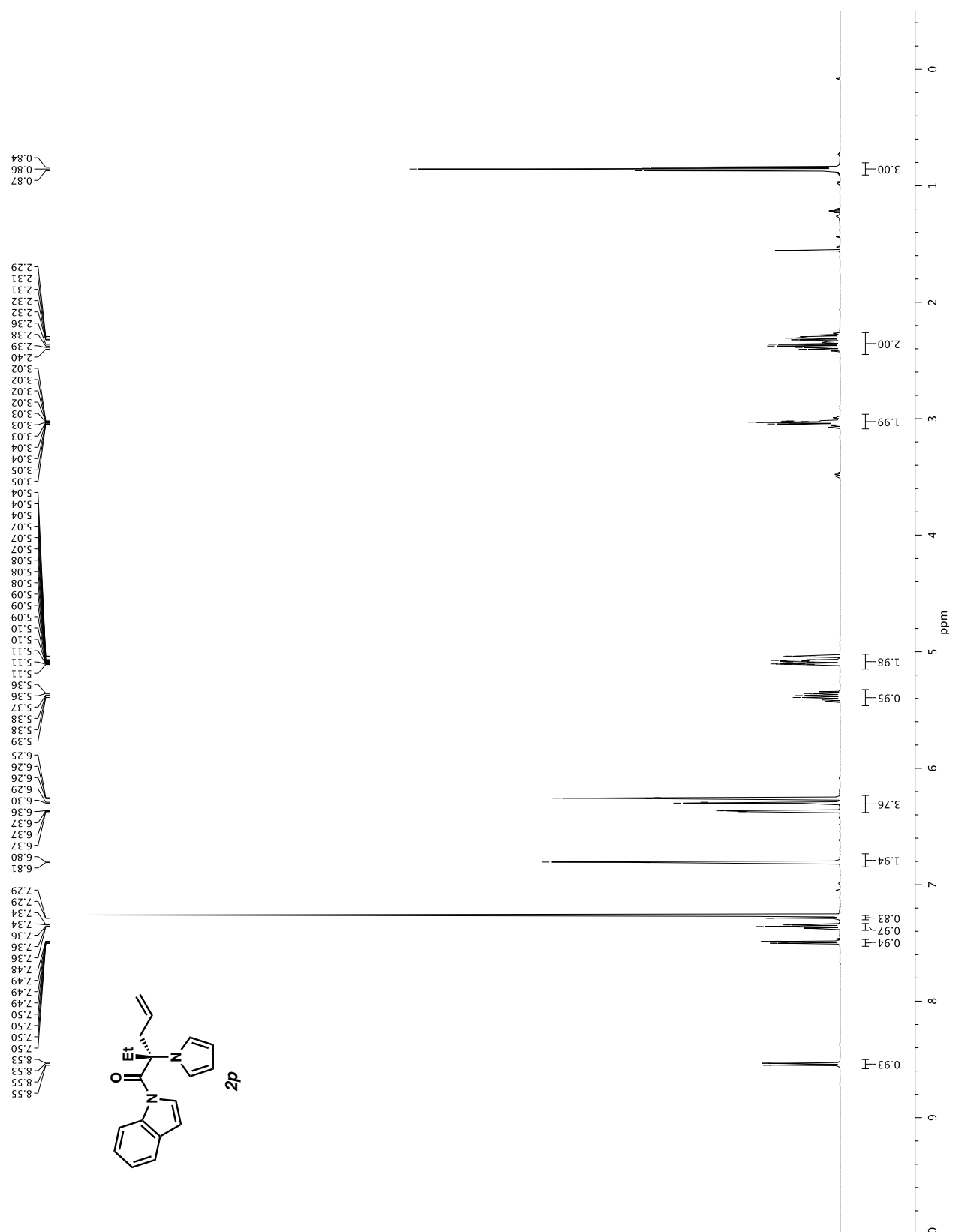


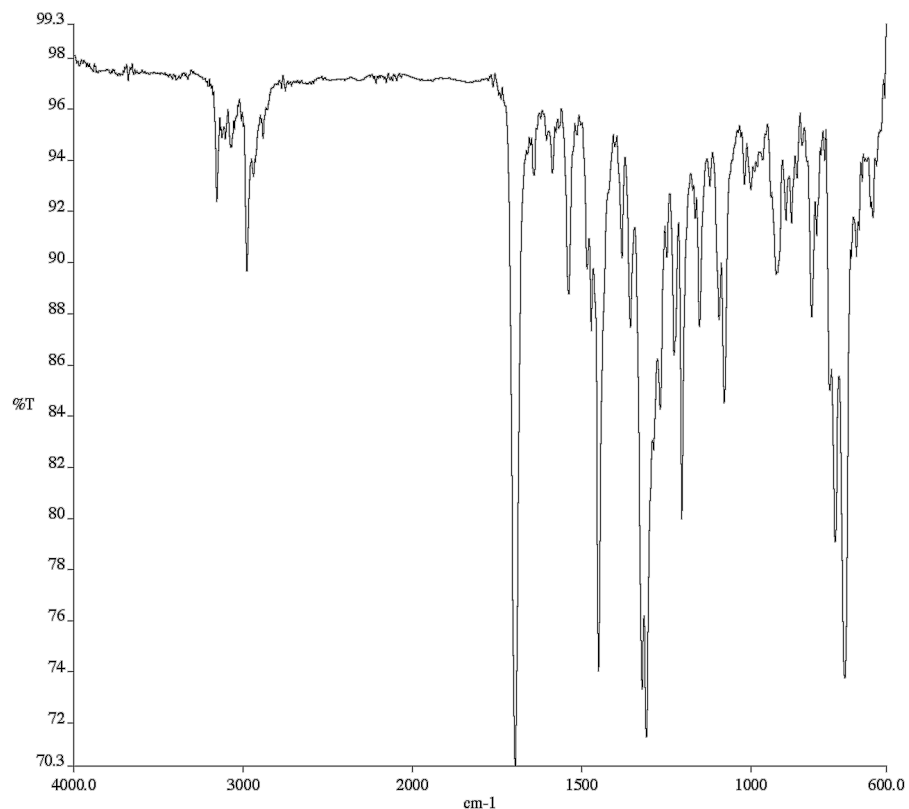
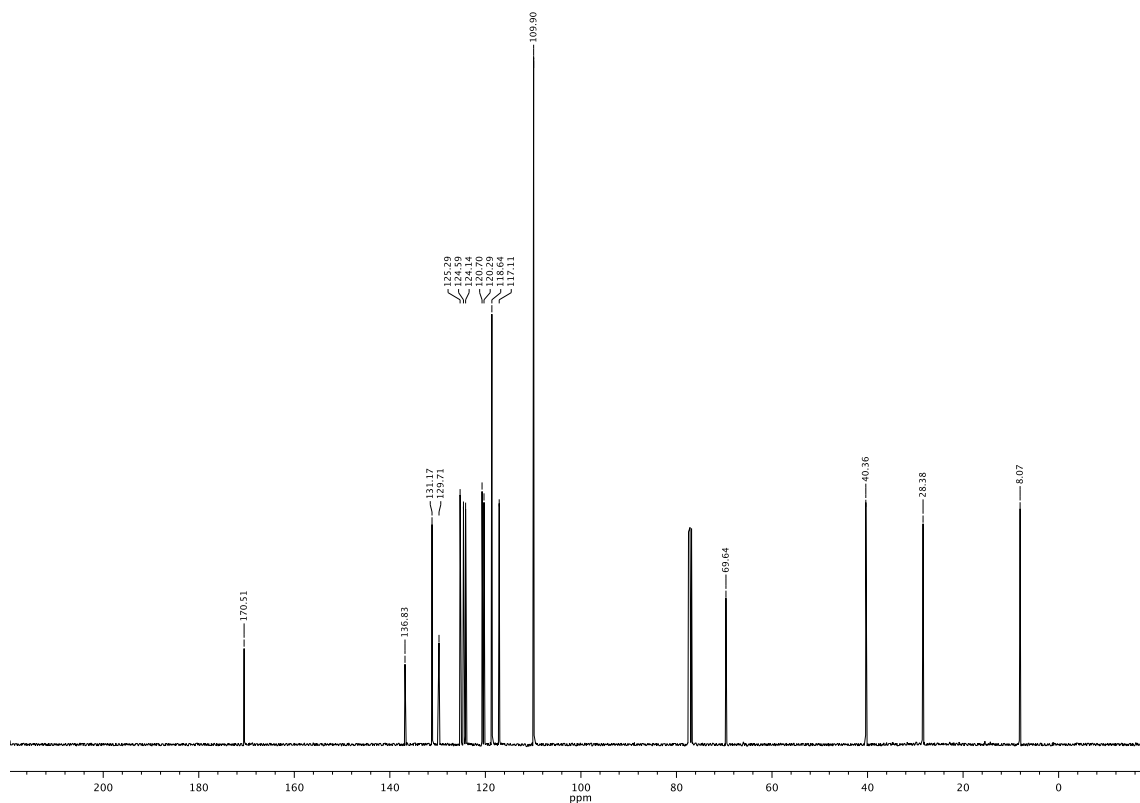


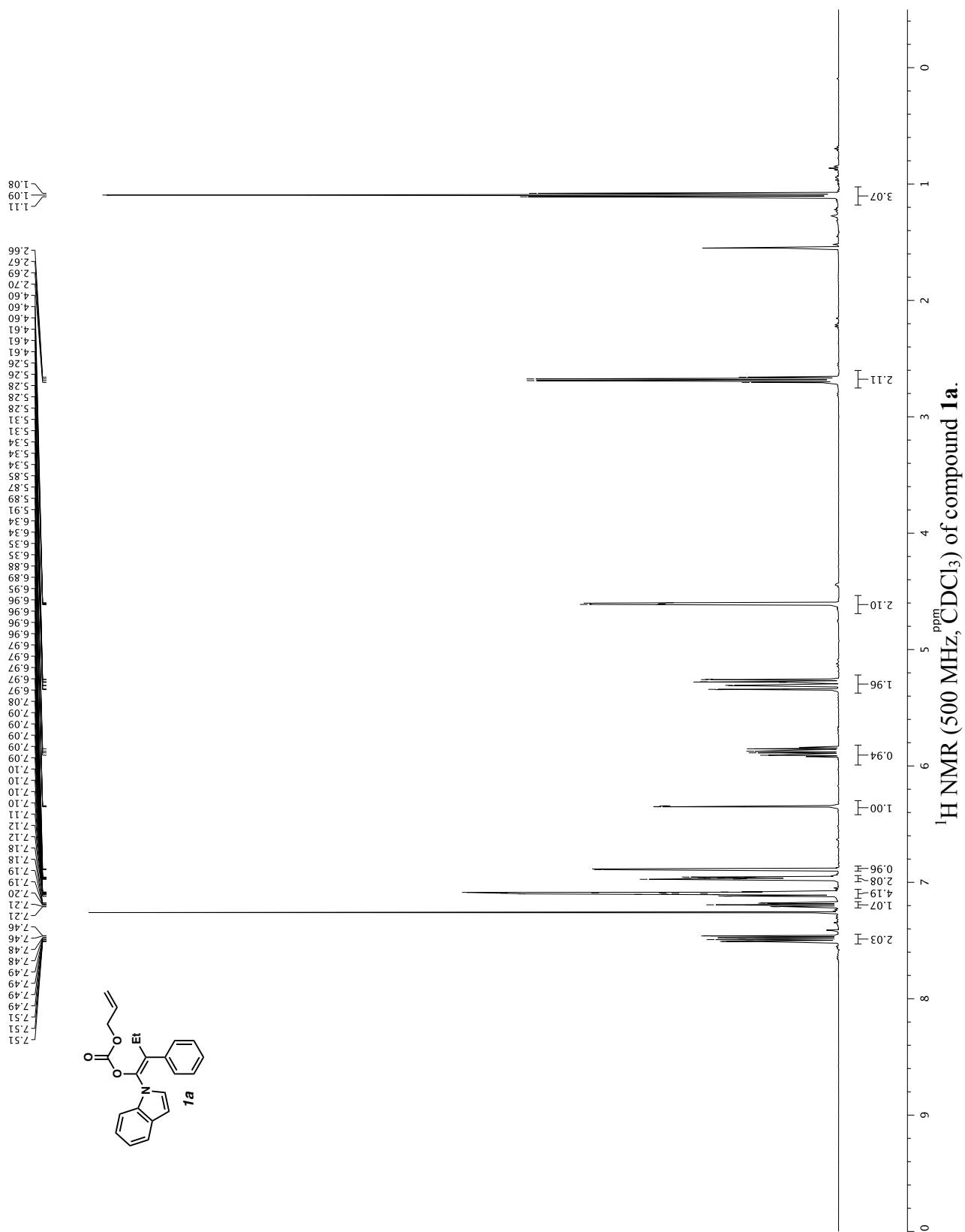
Infrared spectrum (Thin Film, NaCl) of compound **2n**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2n**.

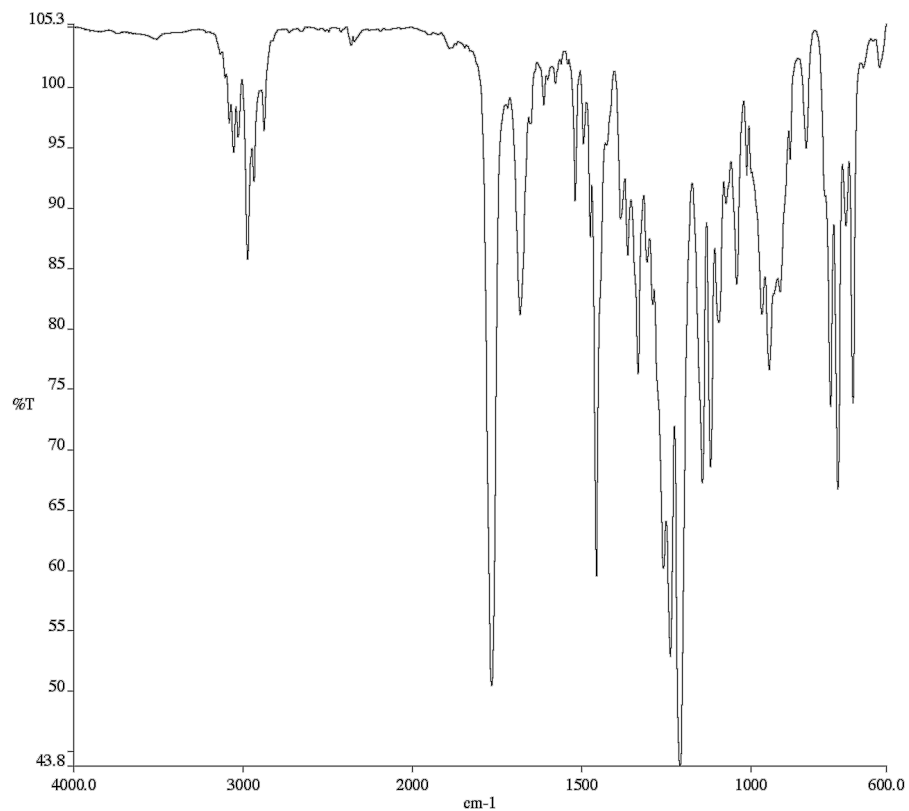
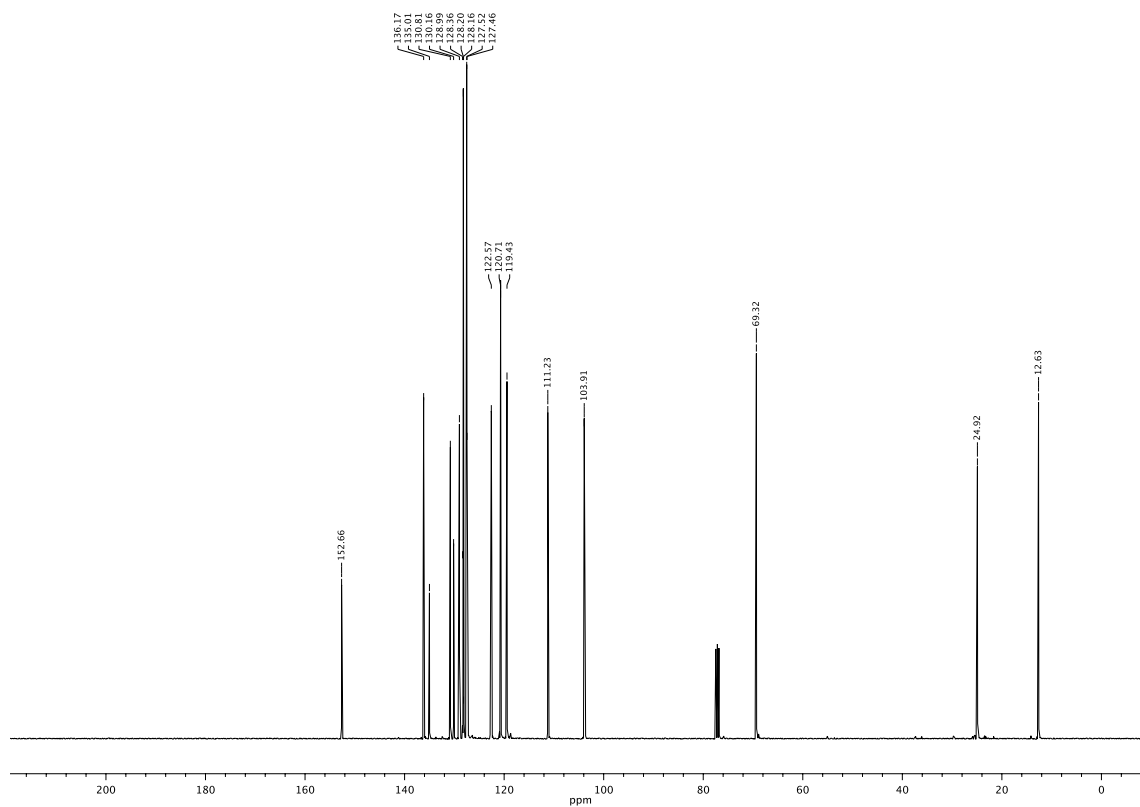


Infrared spectrum (Thin Film, NaCl) of compound **2o**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2o**.

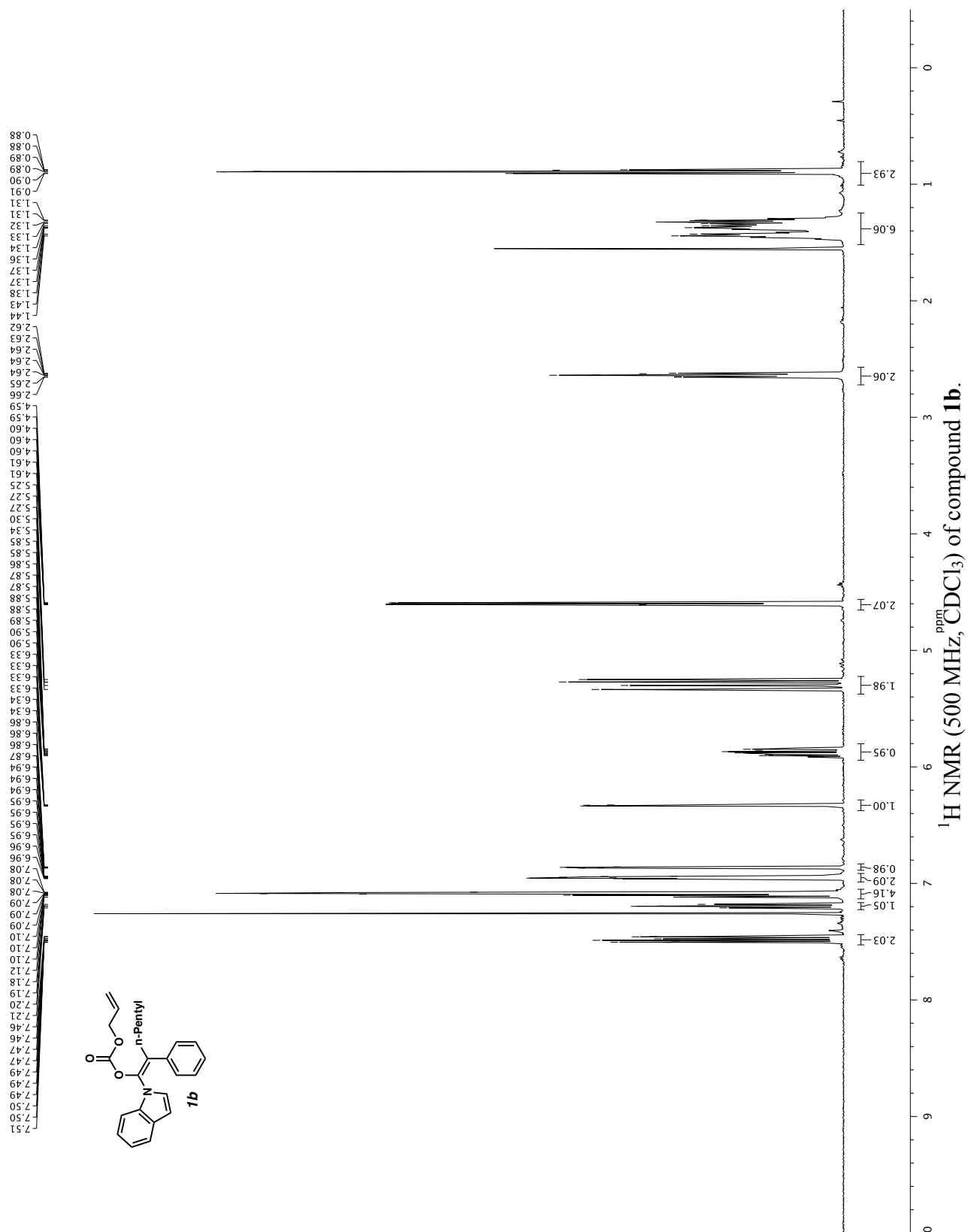


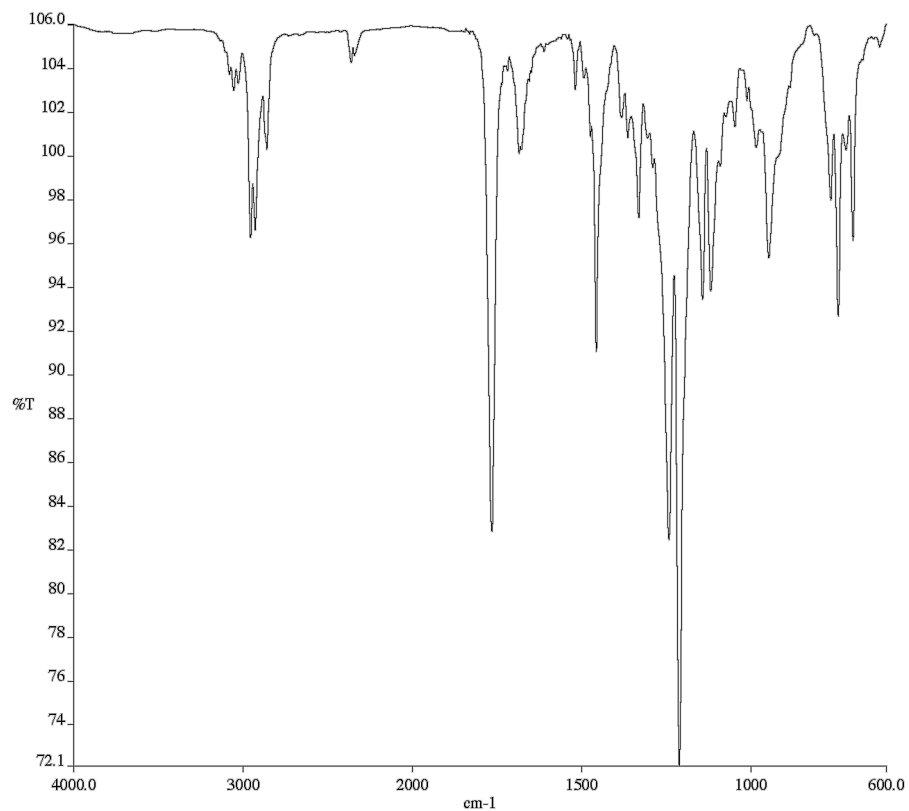
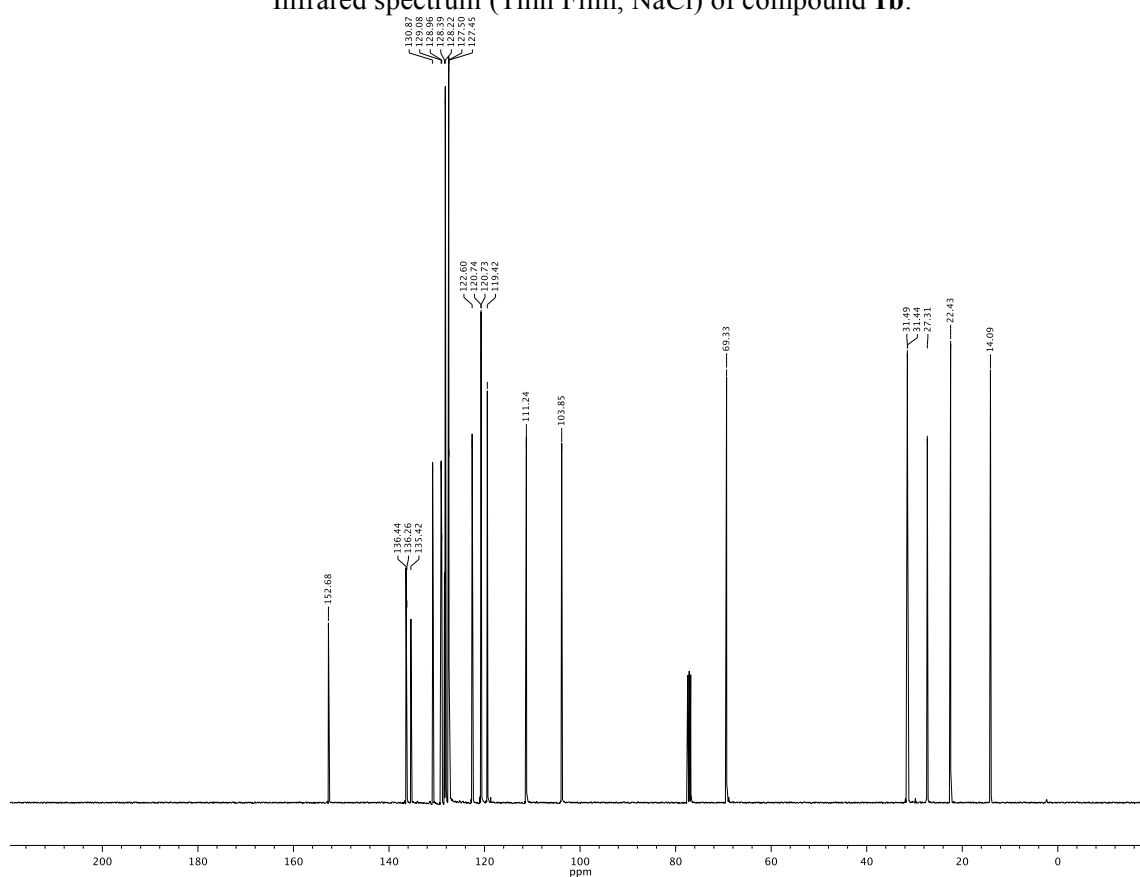
Infrared spectrum (Thin Film, NaCl) of compound **2p**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **2p**.

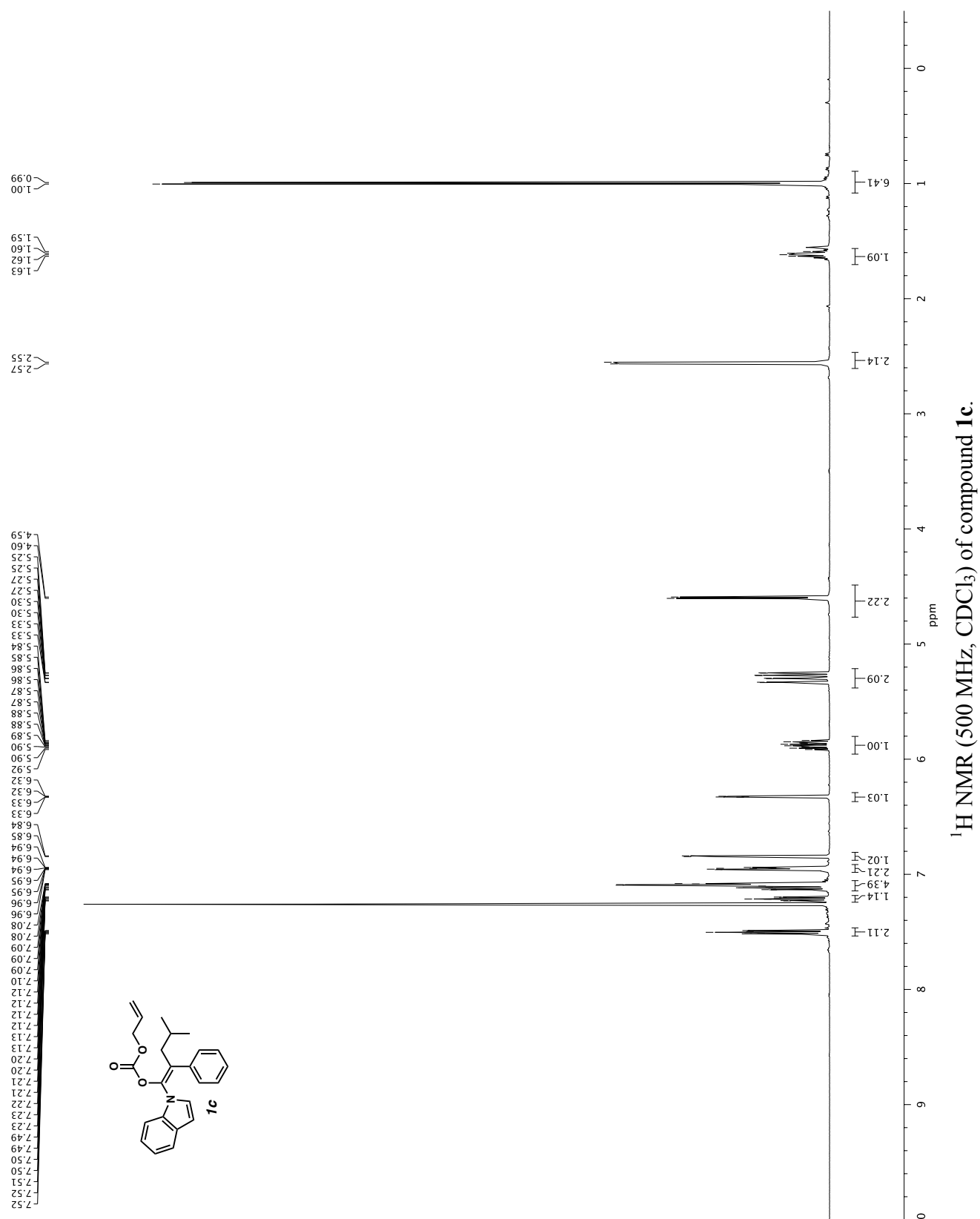


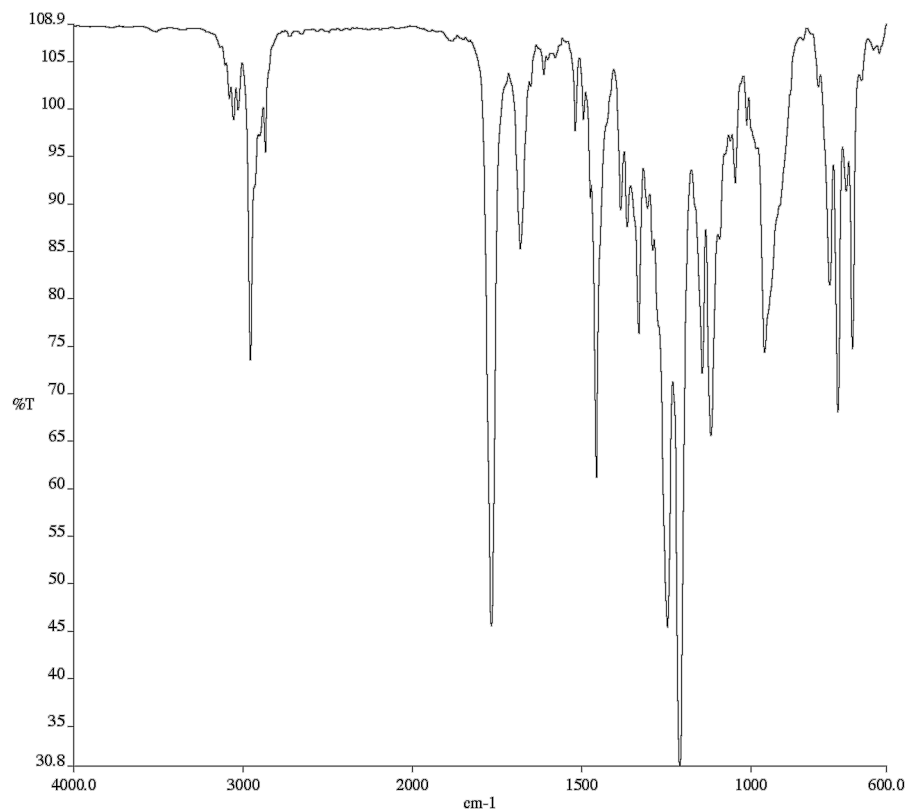
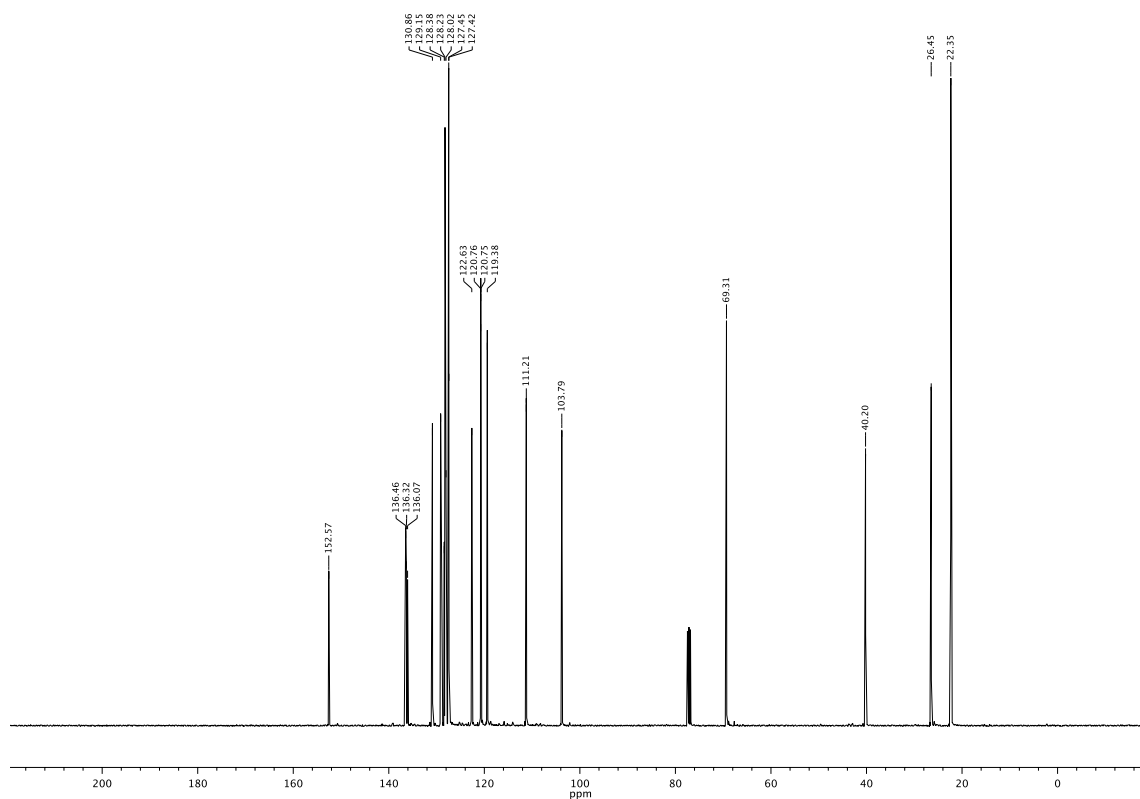
Infrared spectrum (Thin Film, NaCl) of compound **1a**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1a**.

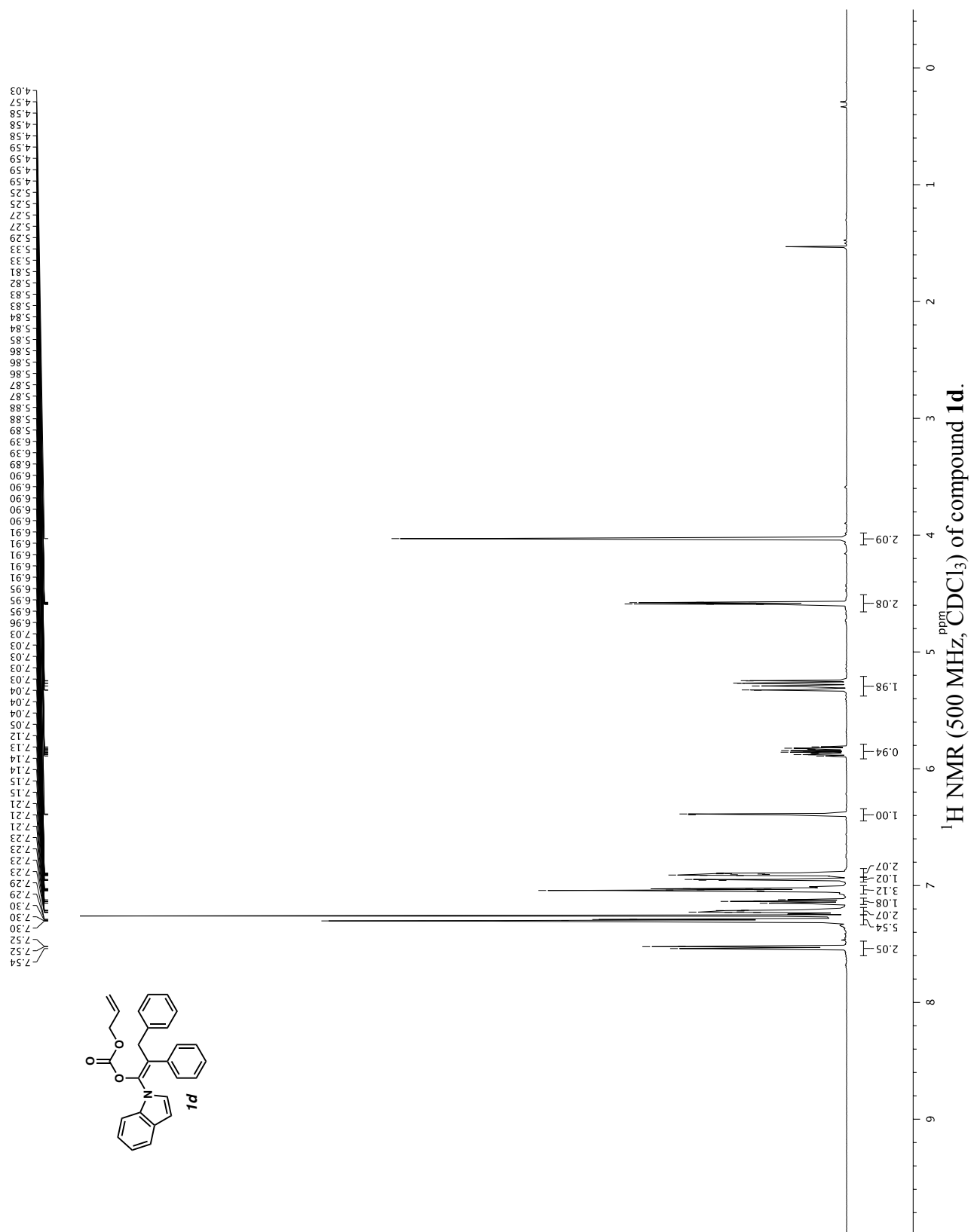


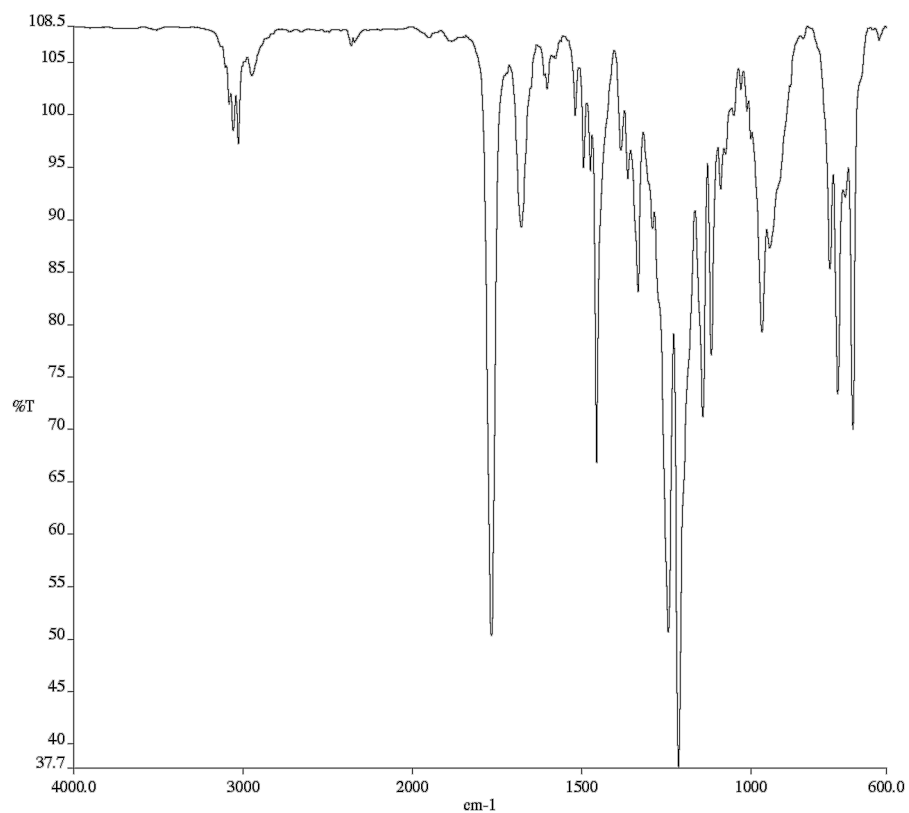
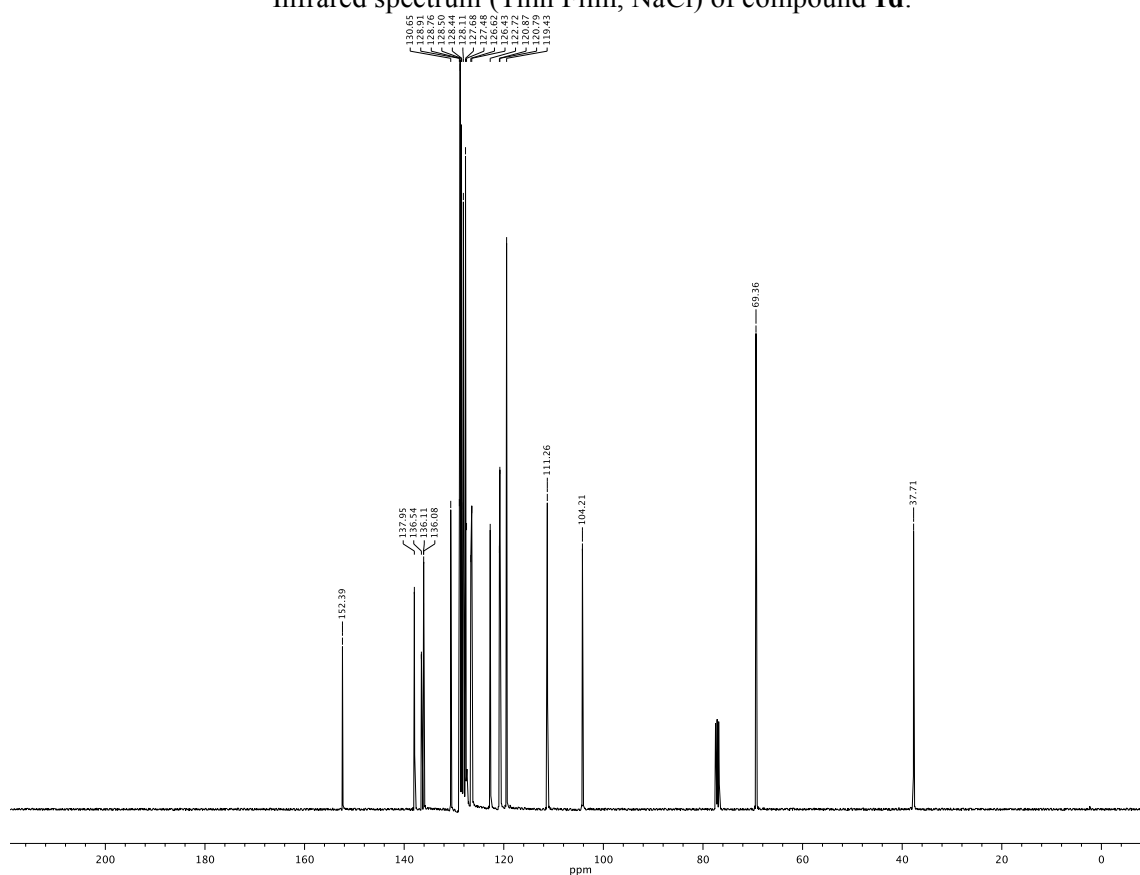


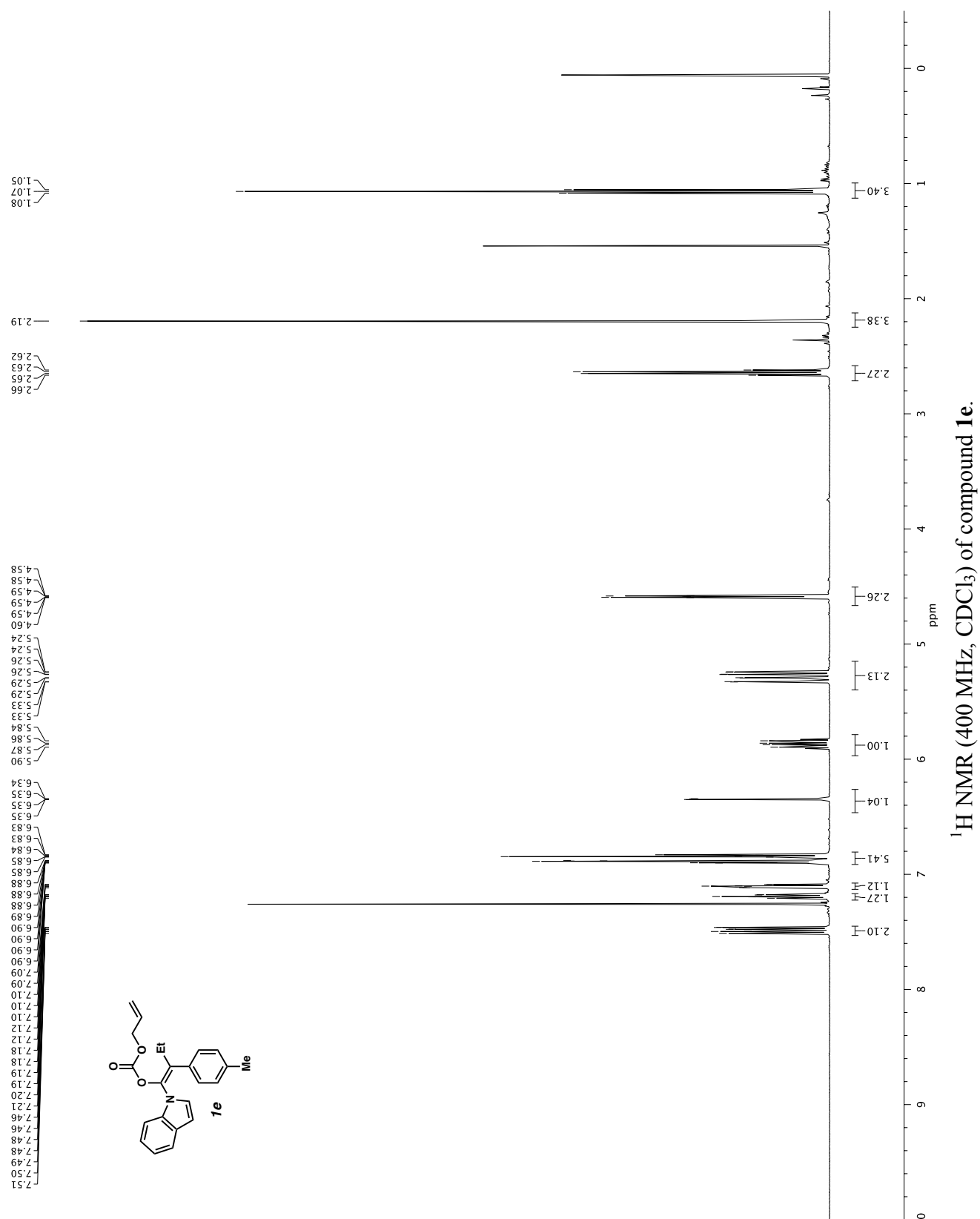
Infrared spectrum (Thin Film, NaCl) of compound **1b**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1b**.

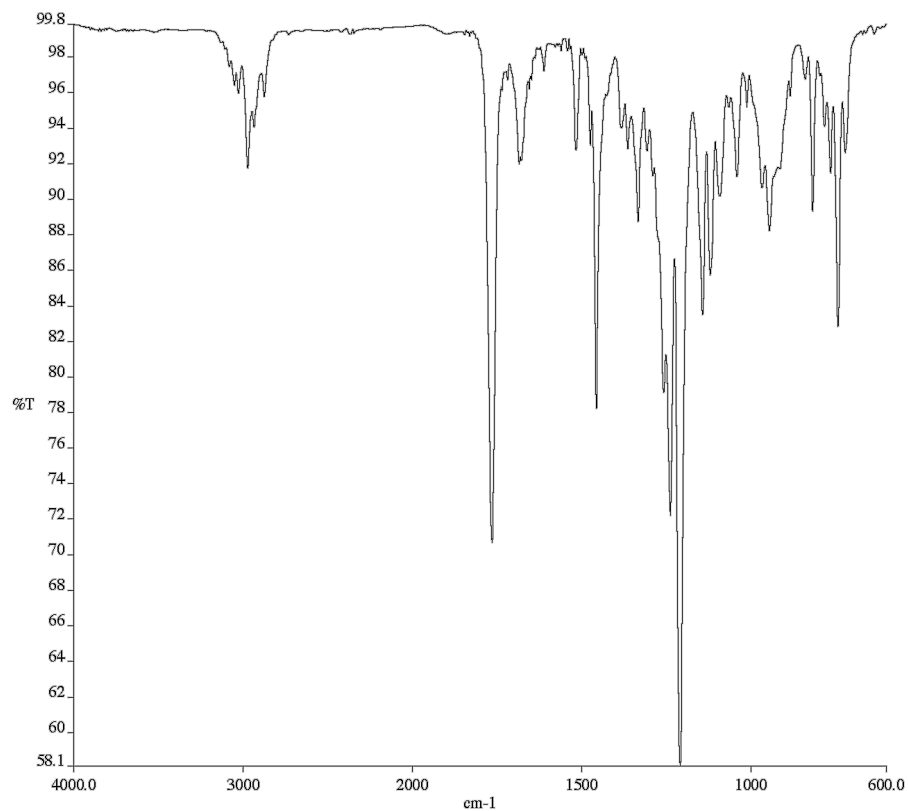
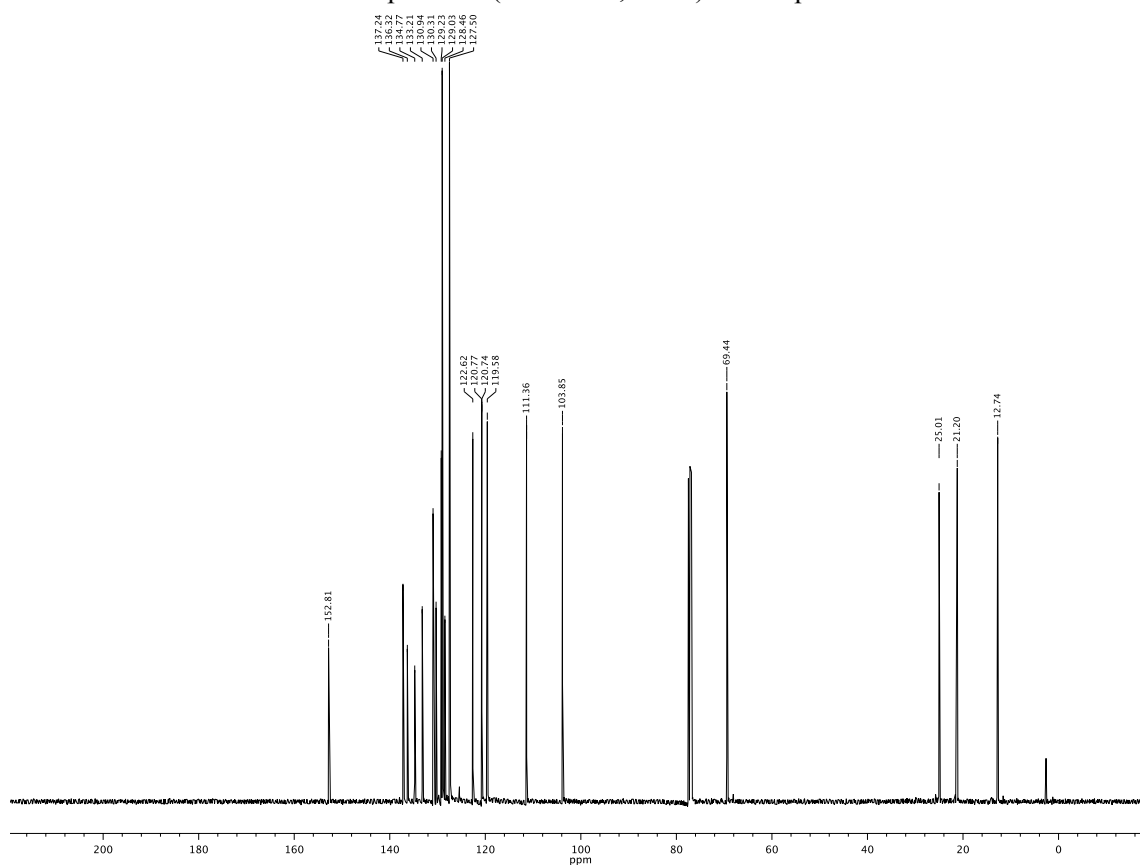


Infrared spectrum (Thin Film, NaCl) of compound **1c**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1c**.

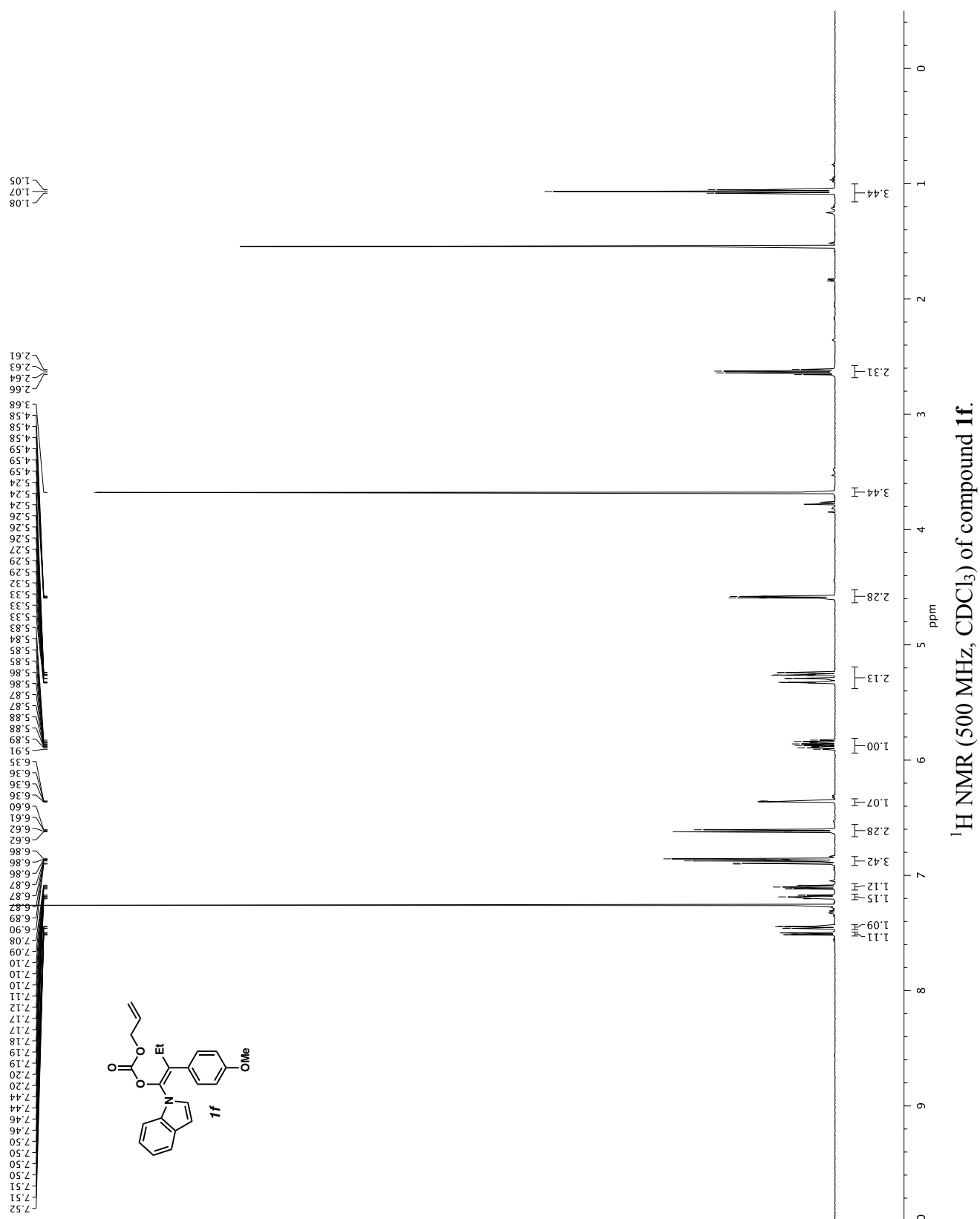


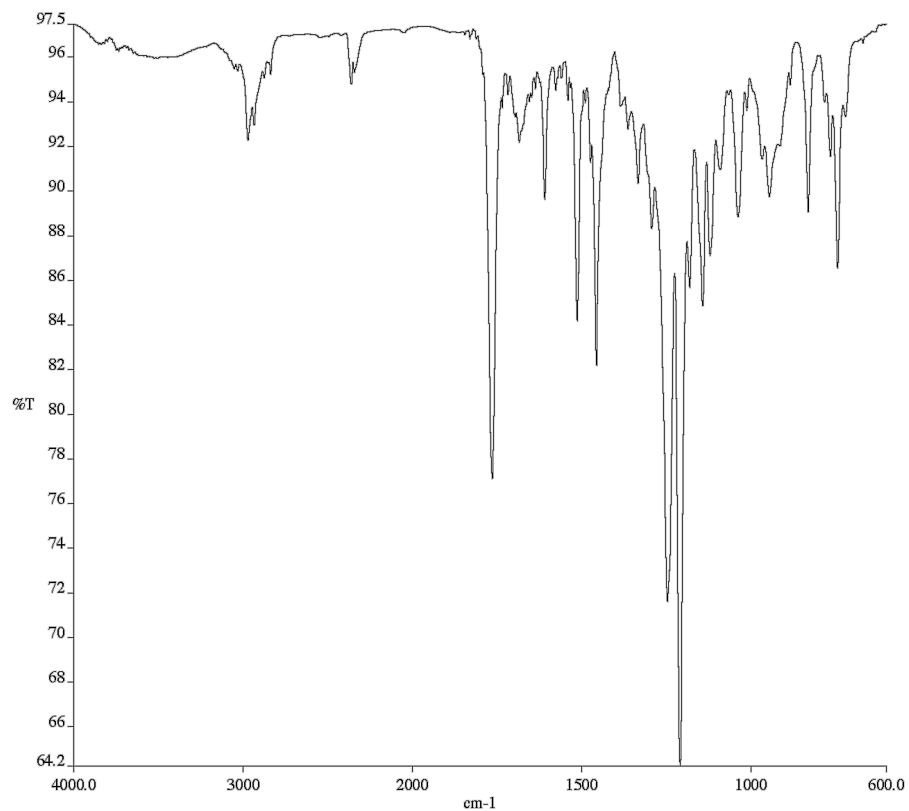
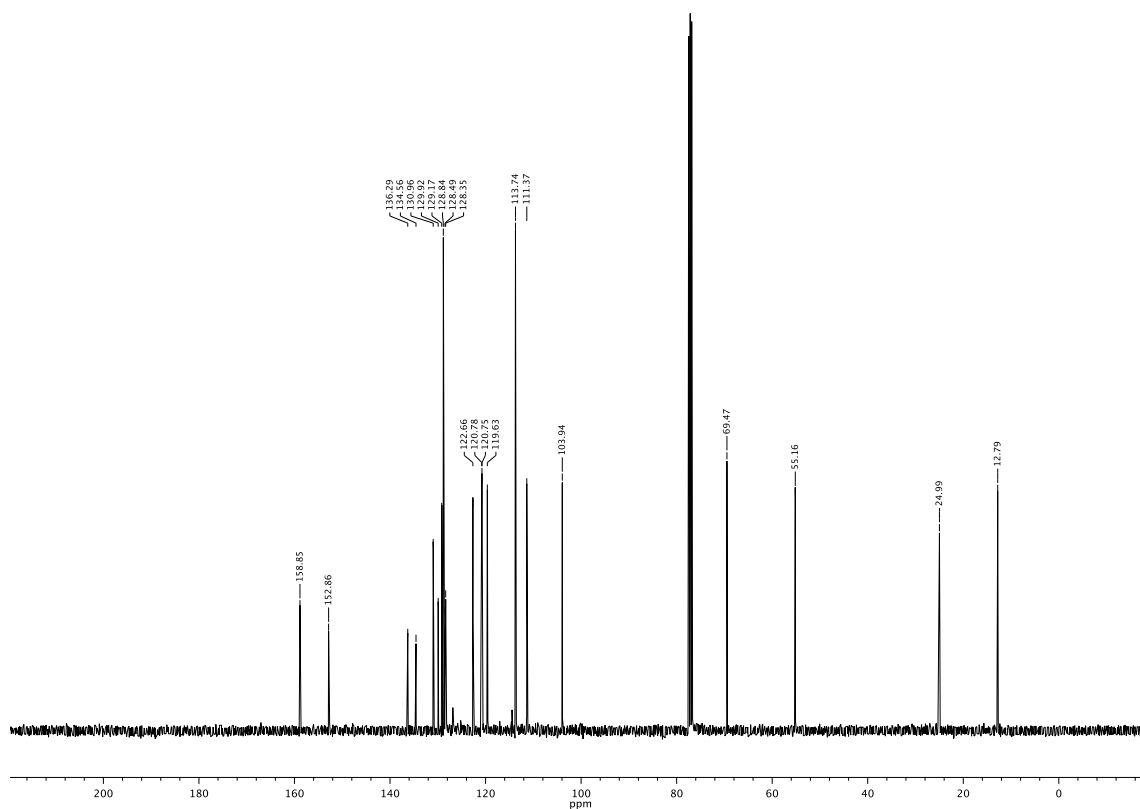
Infrared spectrum (Thin Film, NaCl) of compound **1d**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1d**.

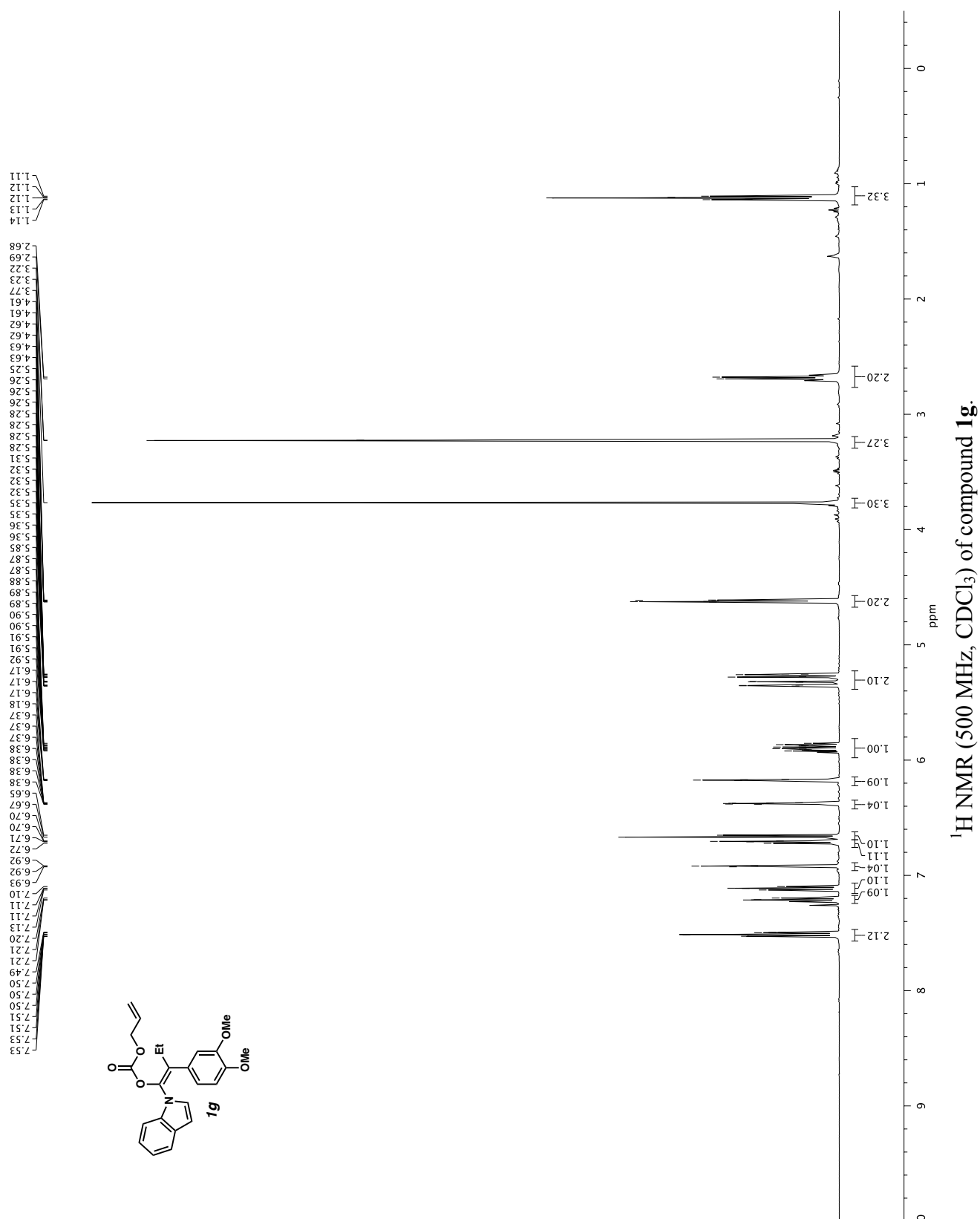


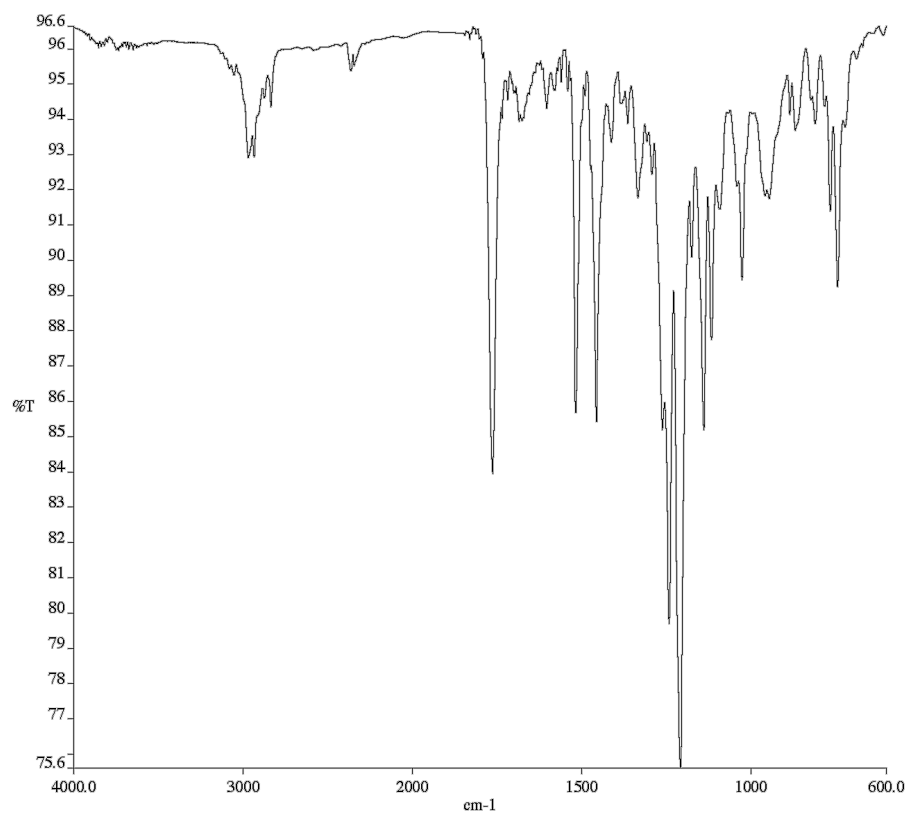
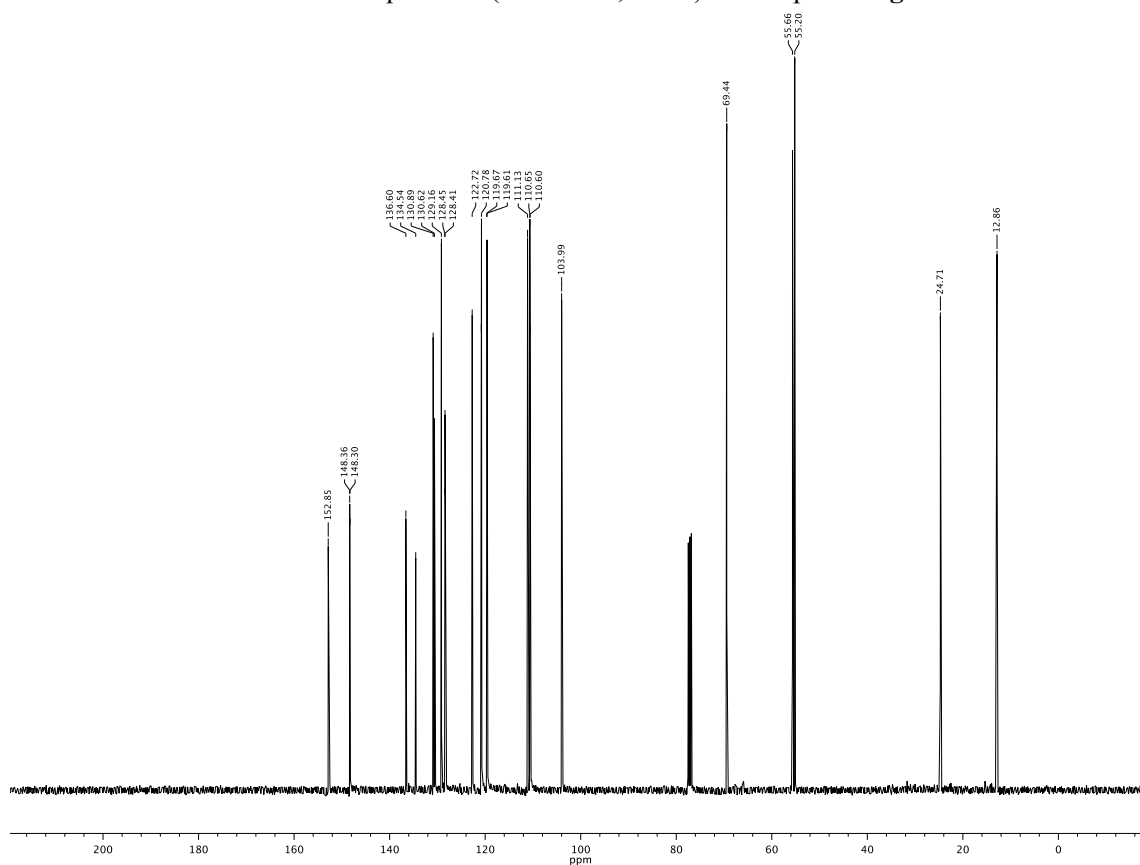
Infrared spectrum (Thin Film, NaCl) of compound **1e**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1e**.

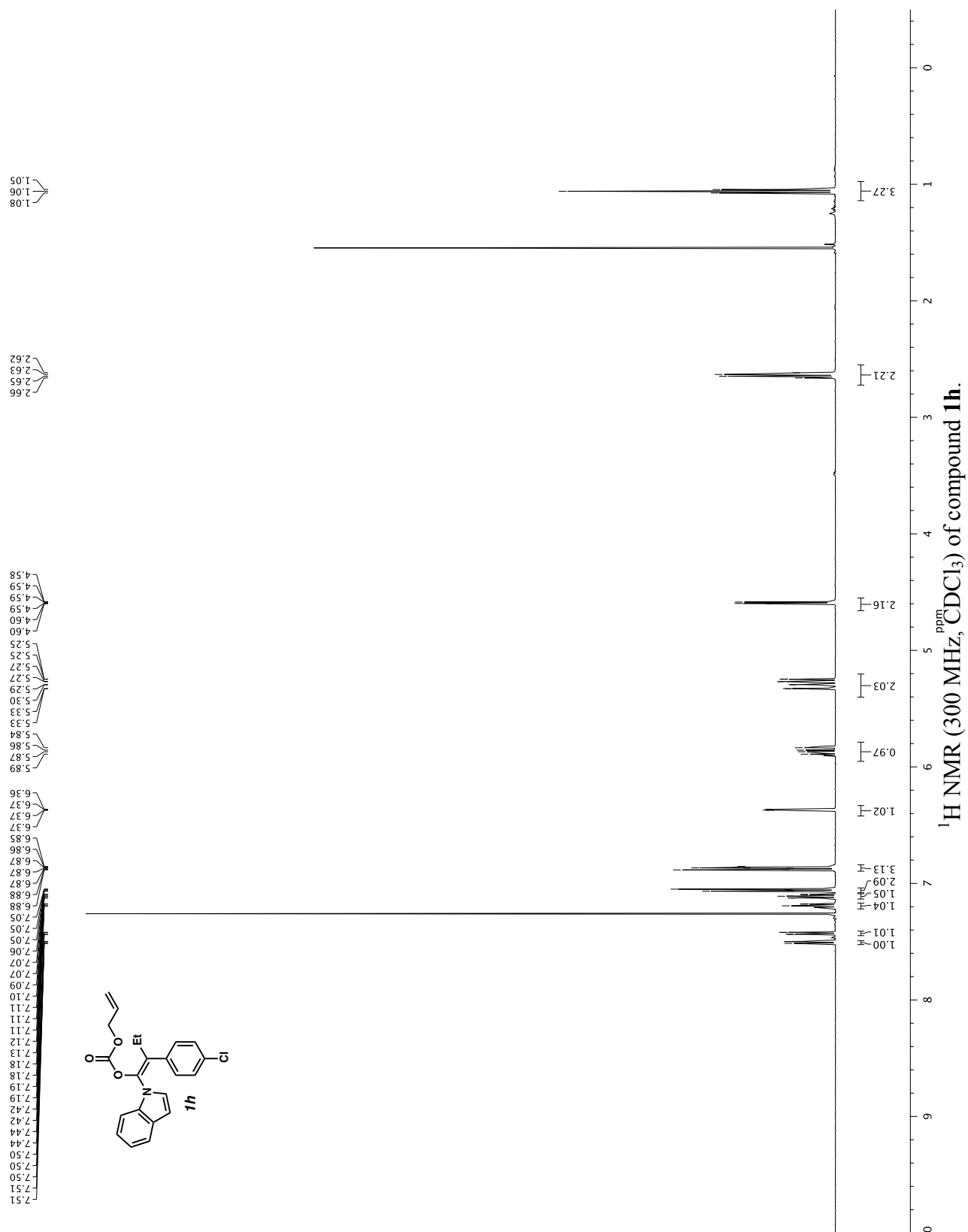


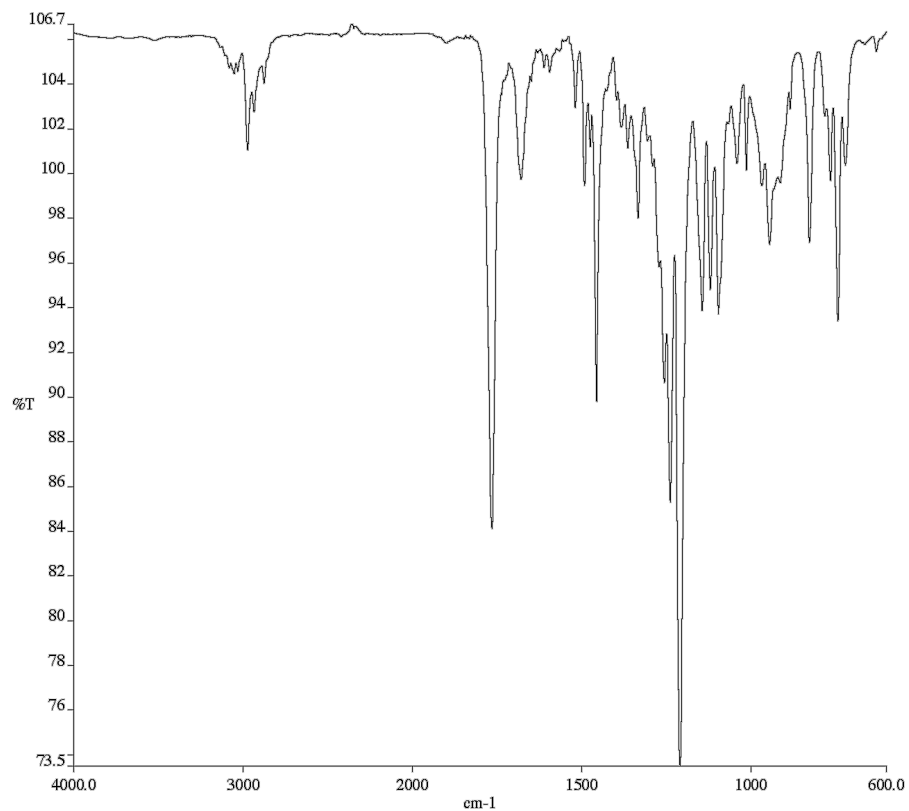
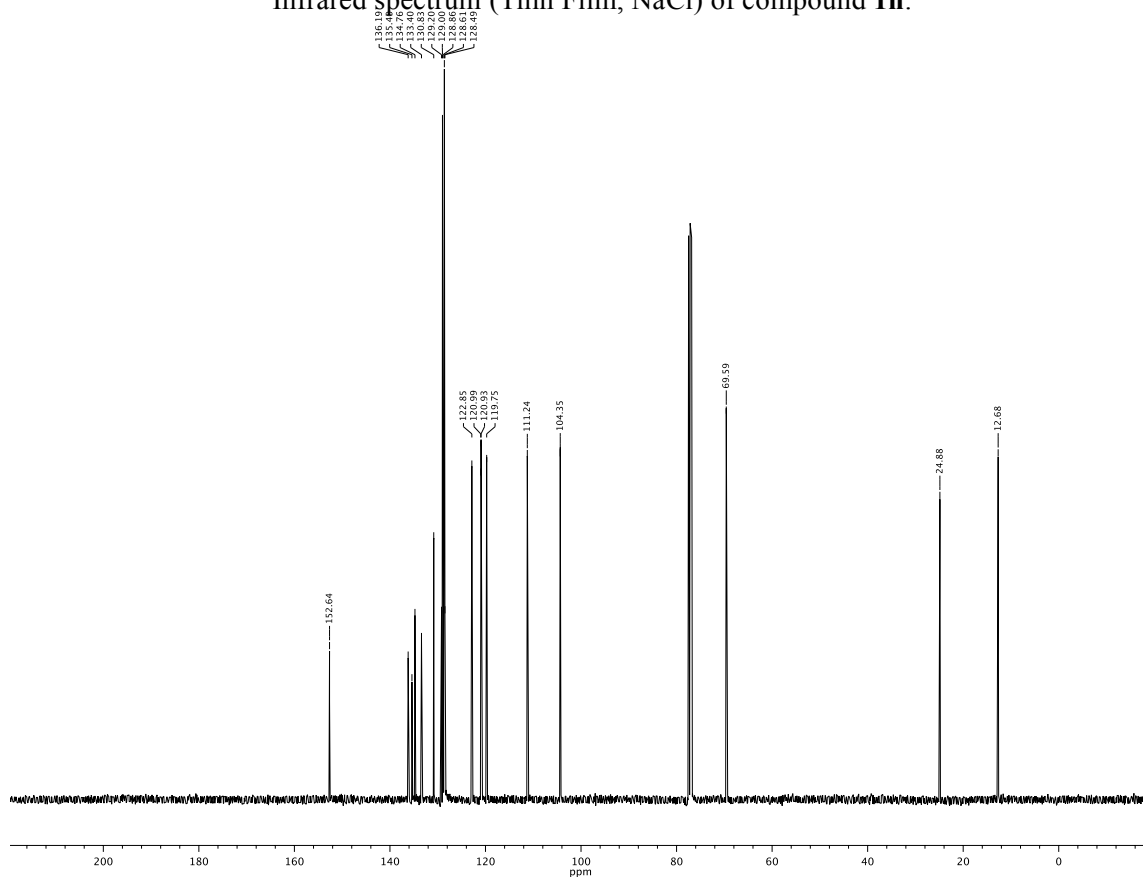


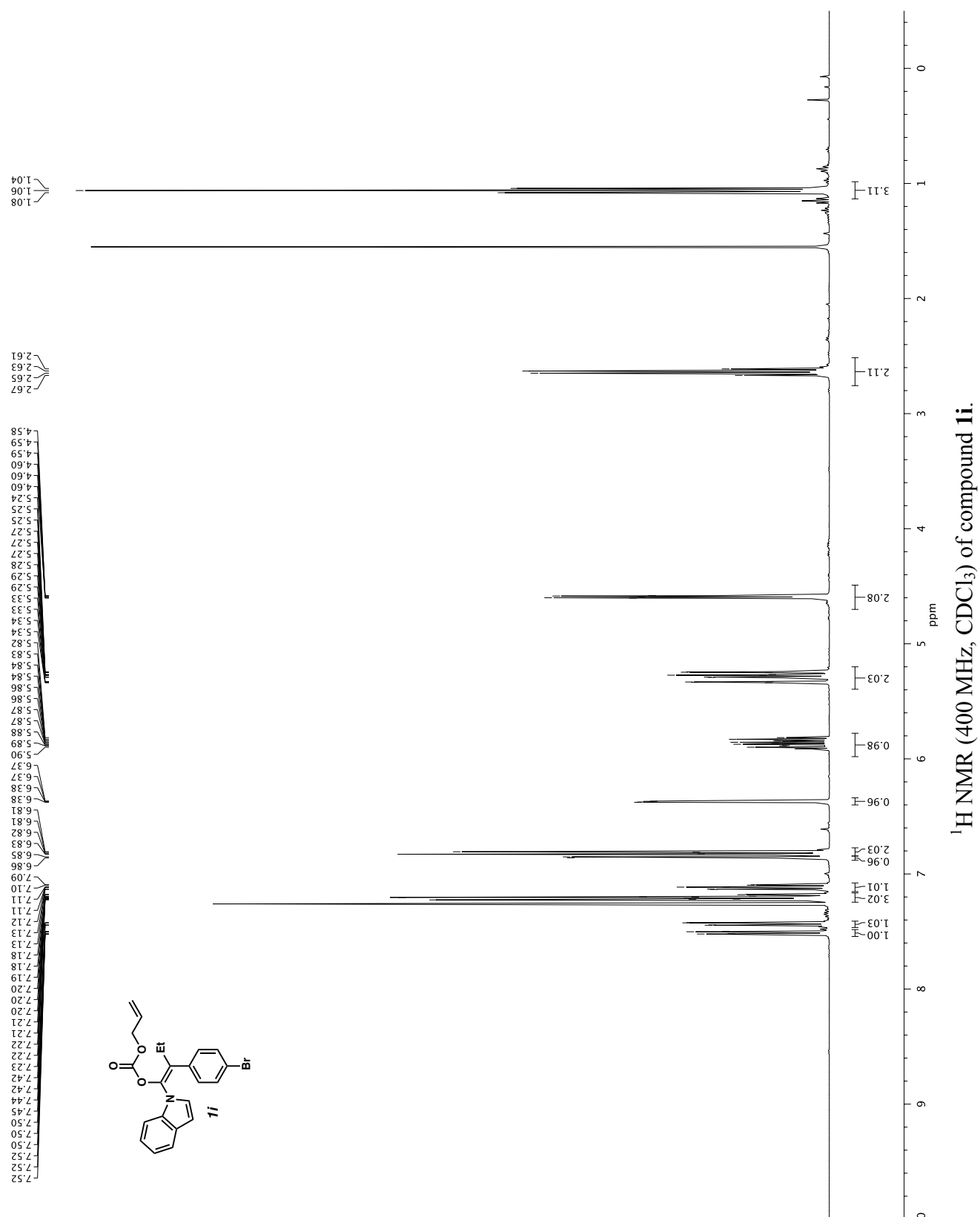
Infrared spectrum (Thin Film, NaCl) of compound **1f**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1f**.

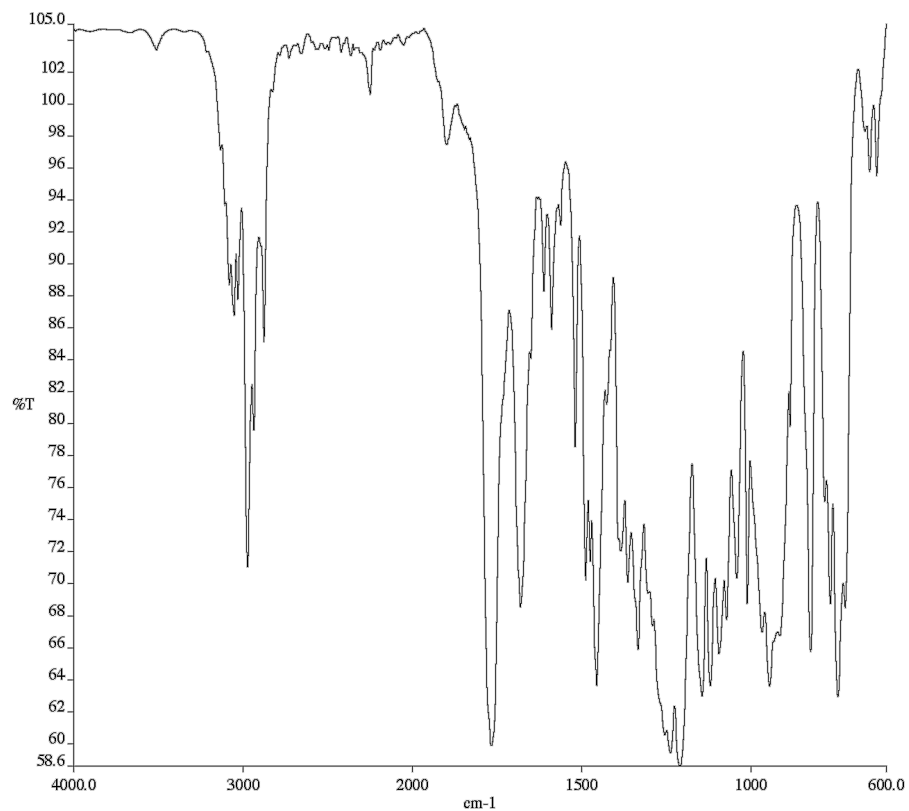
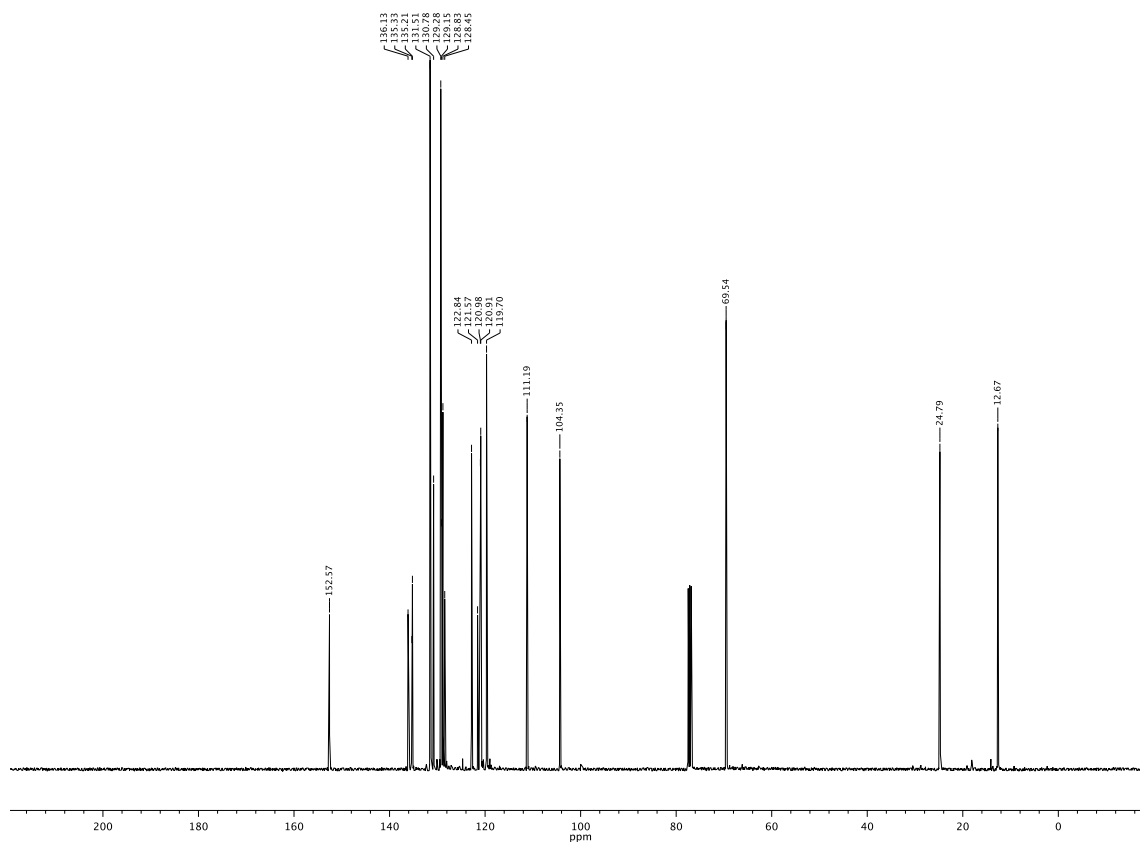


Infrared spectrum (Thin Film, NaCl) of compound **1g**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1g**.

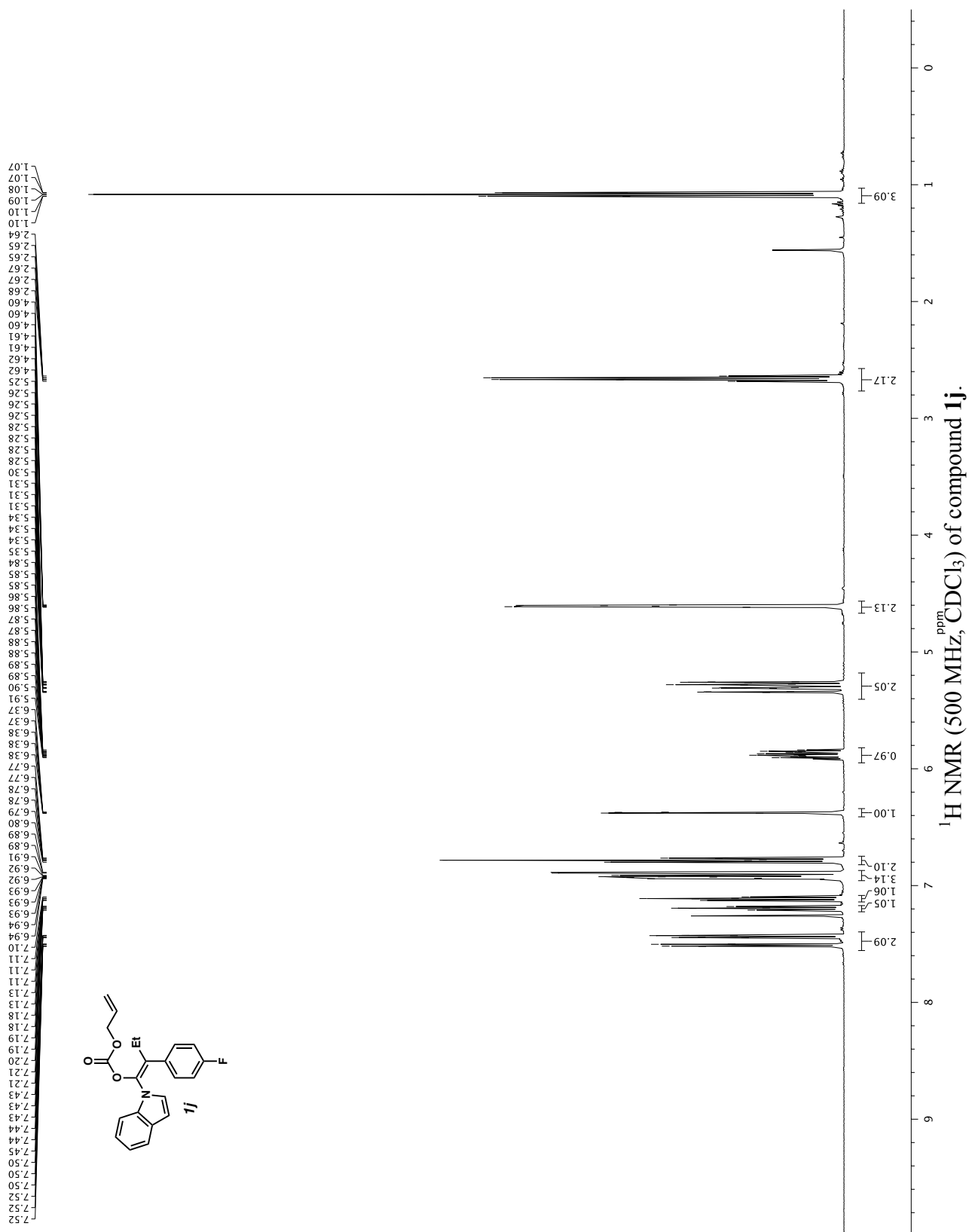


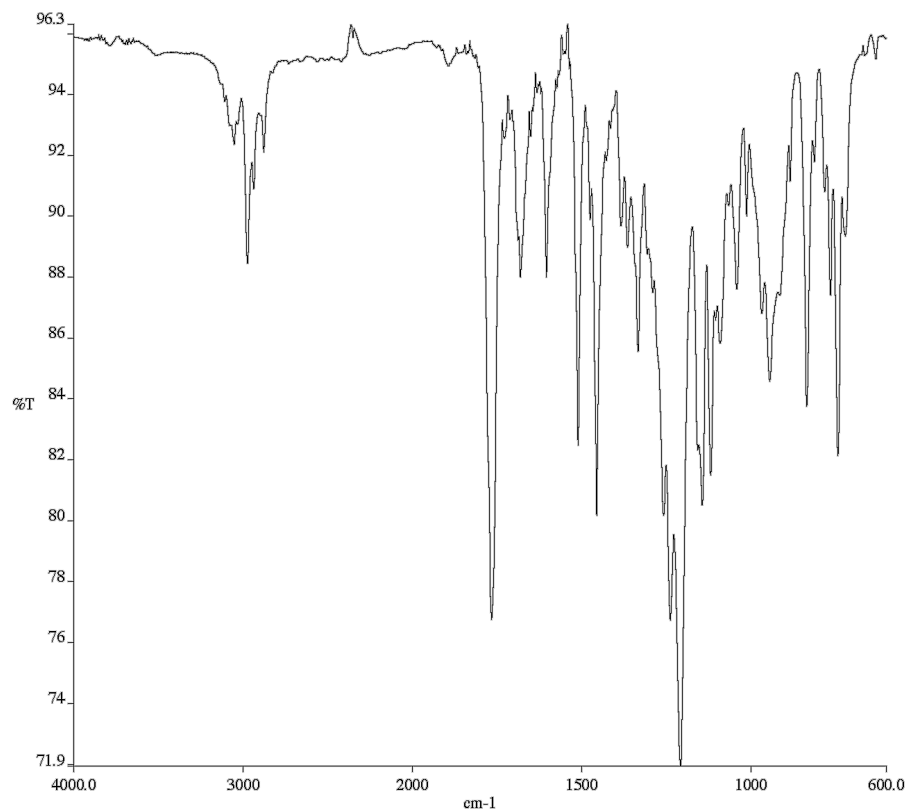
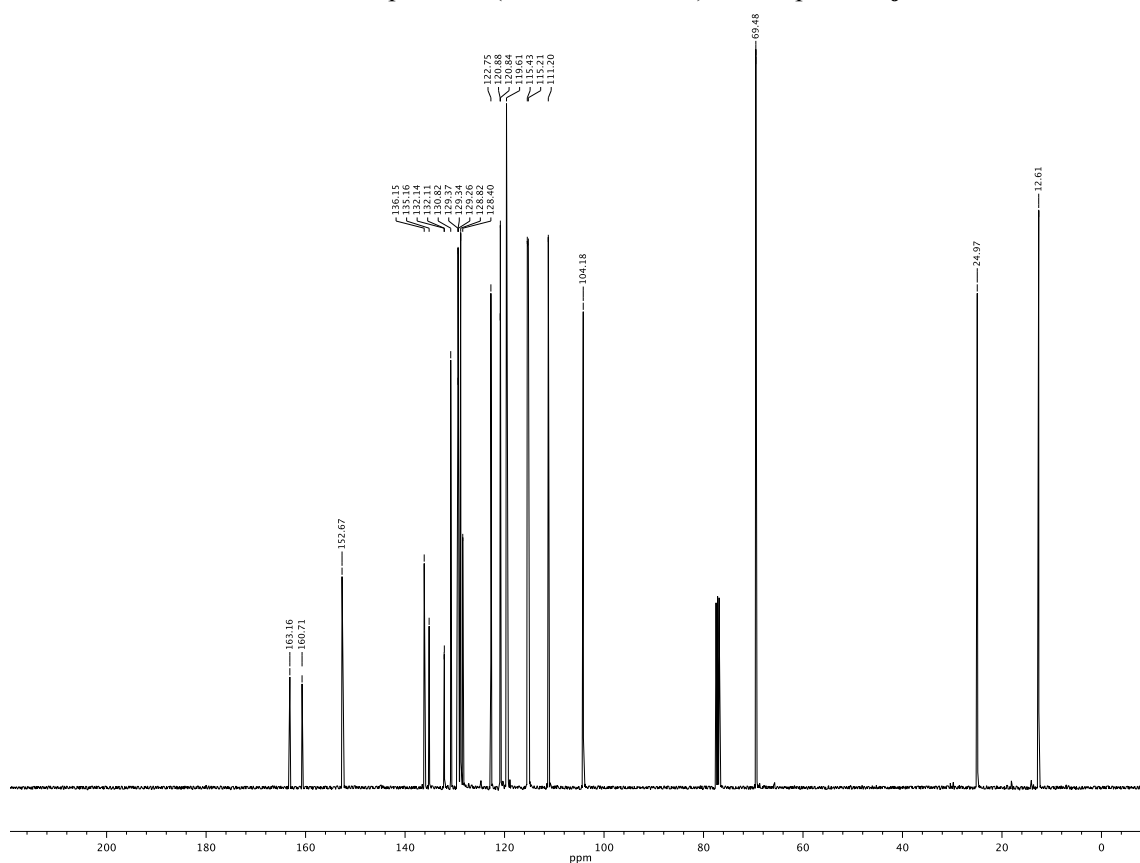
Infrared spectrum (Thin Film, NaCl) of compound **1h**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1h**.

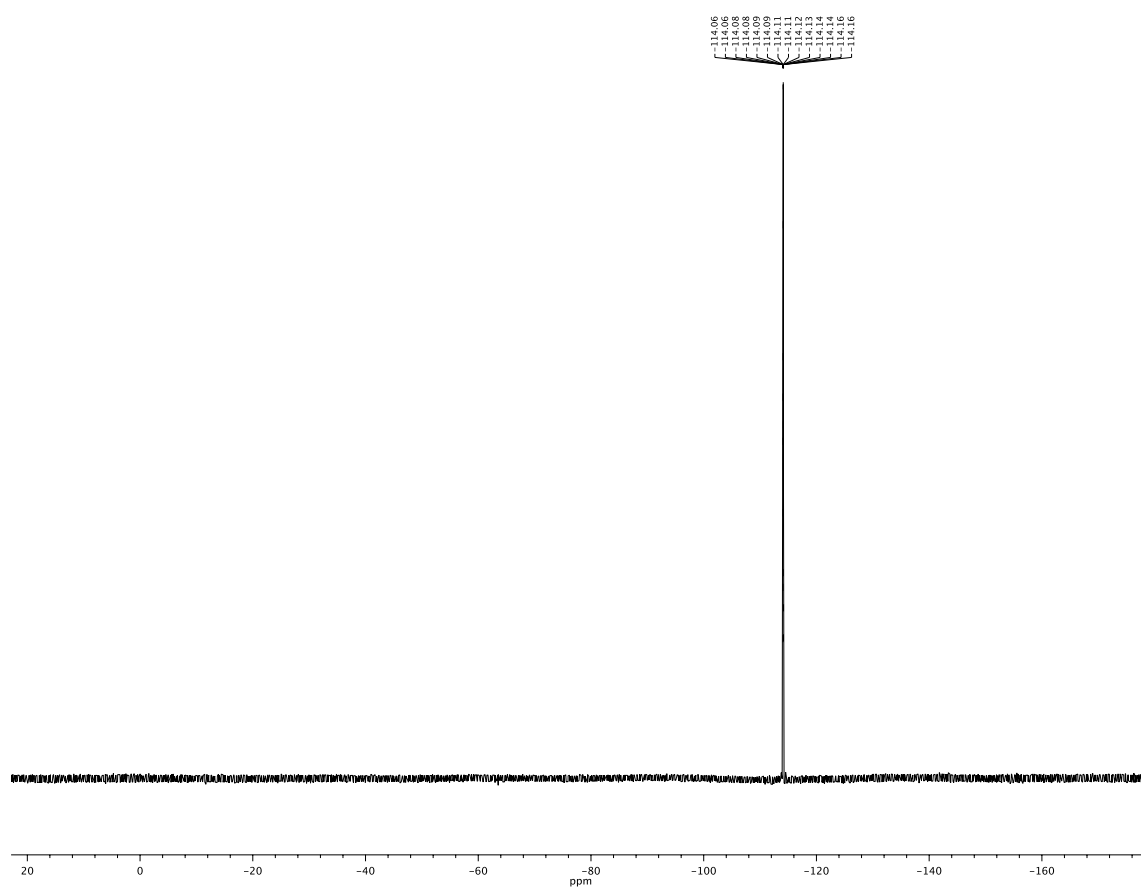


Infrared spectrum (Thin Film, NaCl) of compound **1i**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1i**.

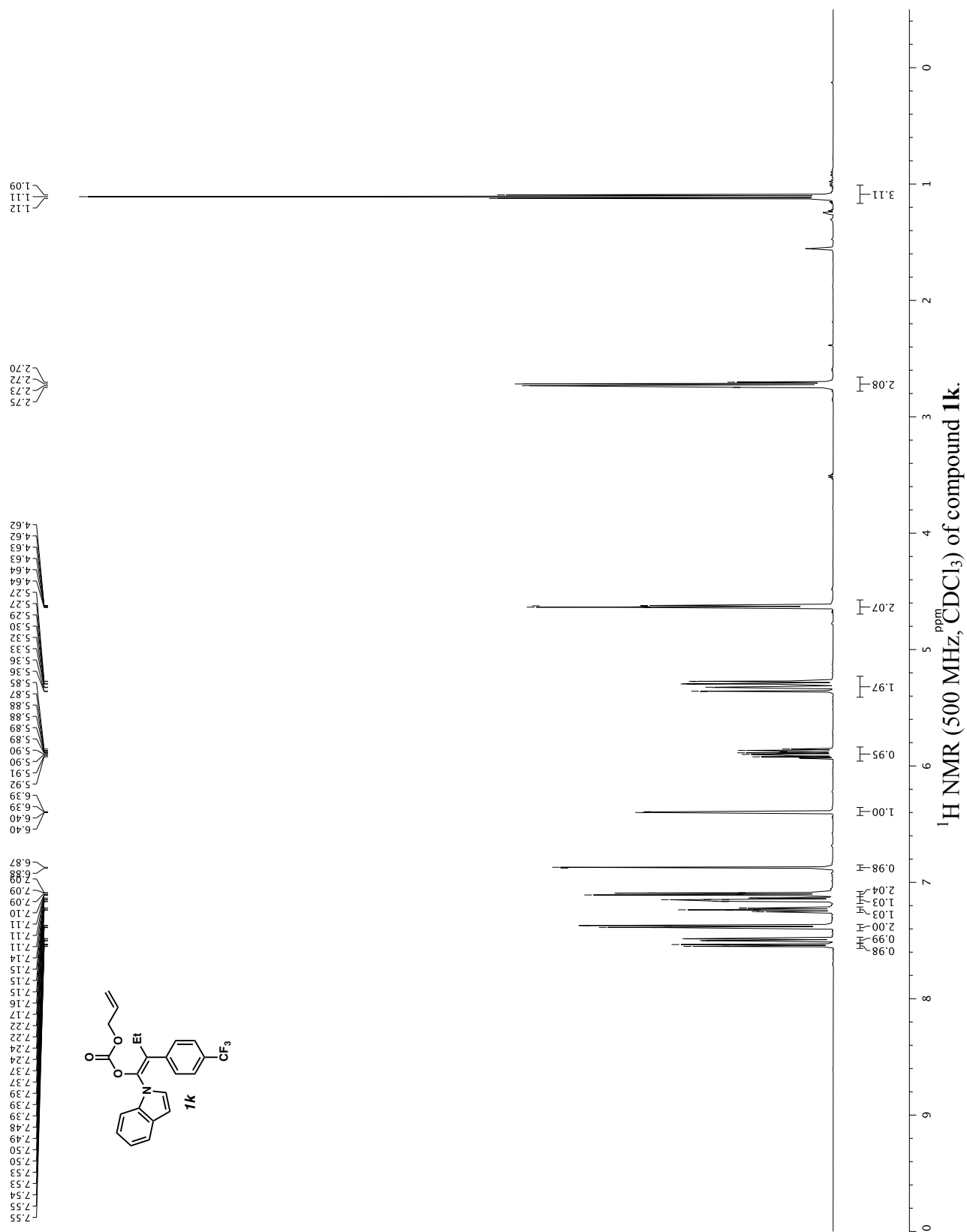


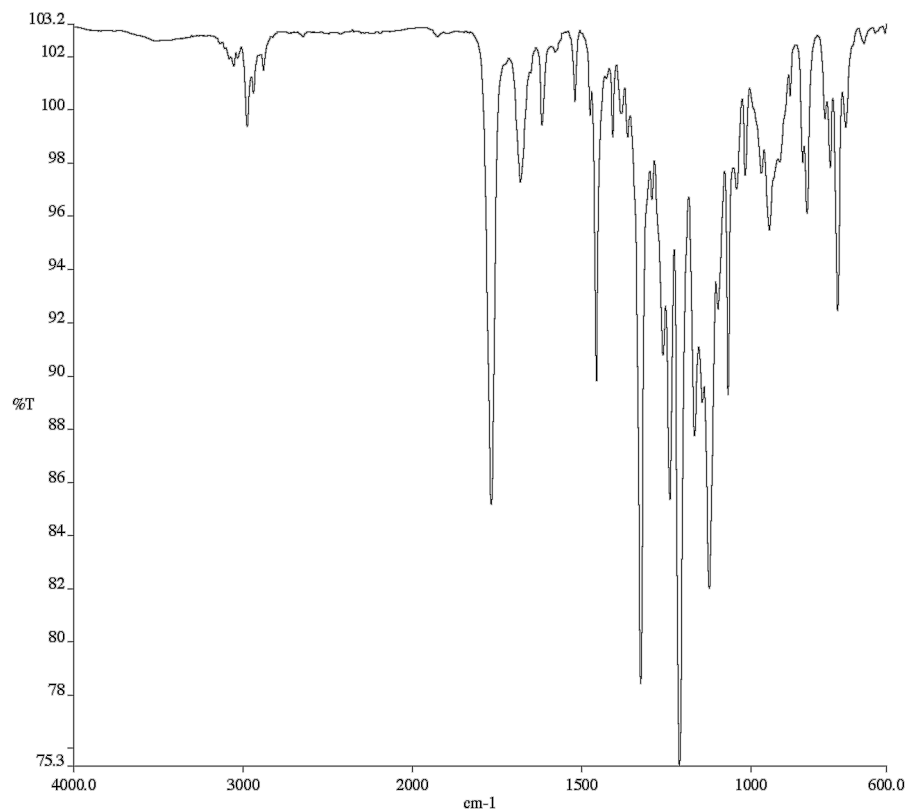
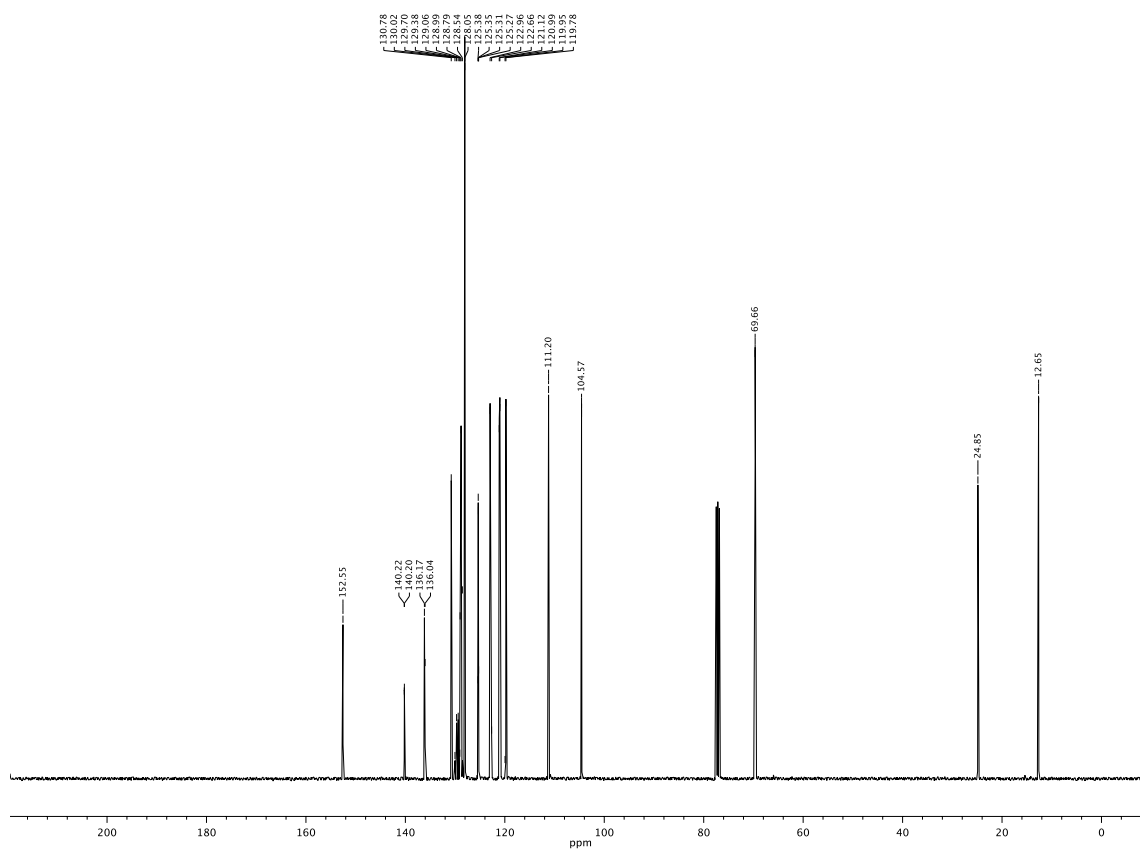


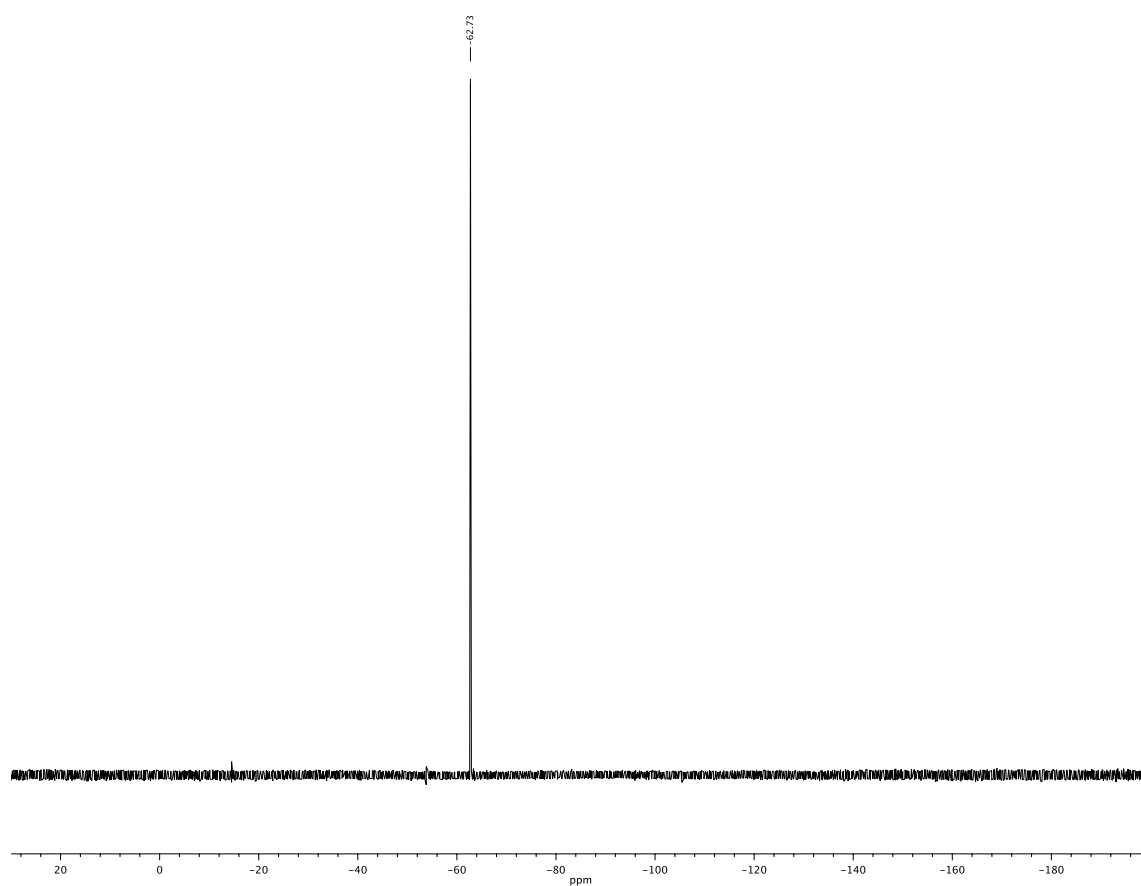
Infrared spectrum (Thin Film, NaCl) of compound **1j**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1j**.

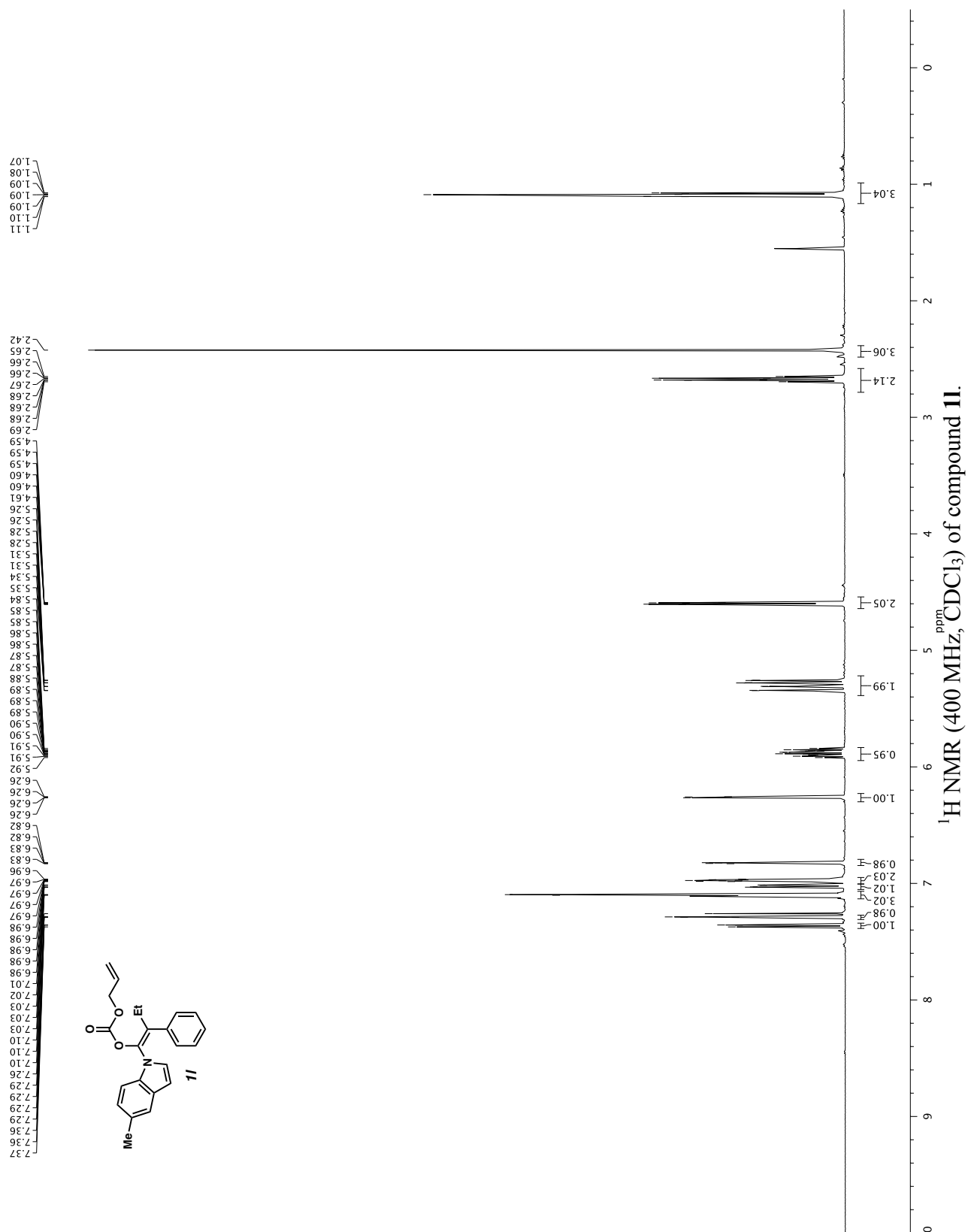


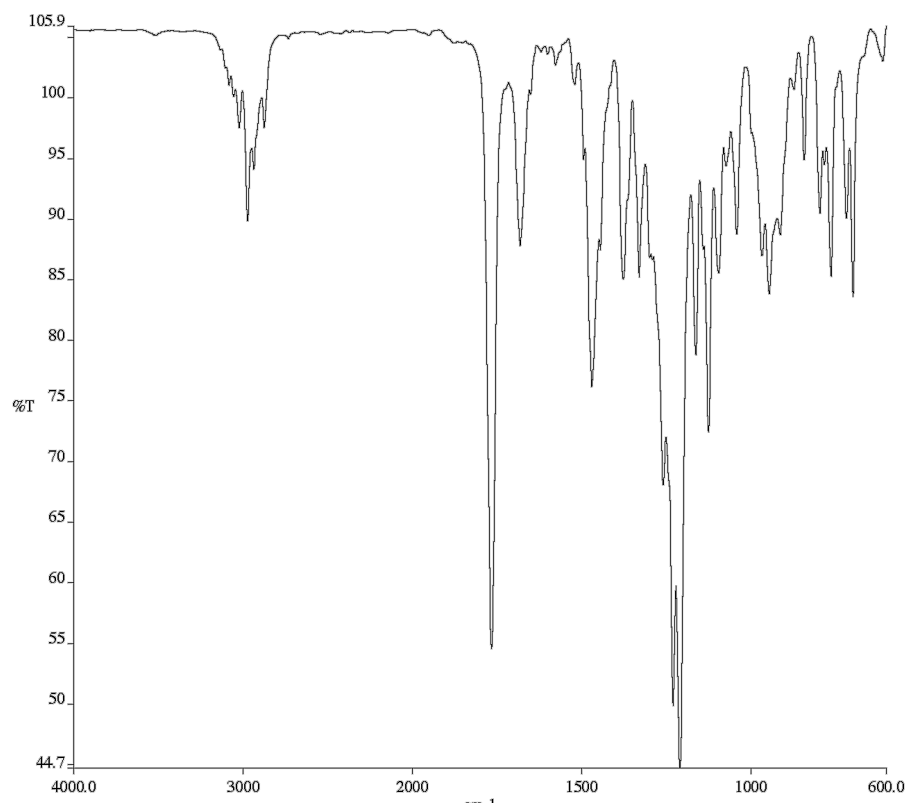
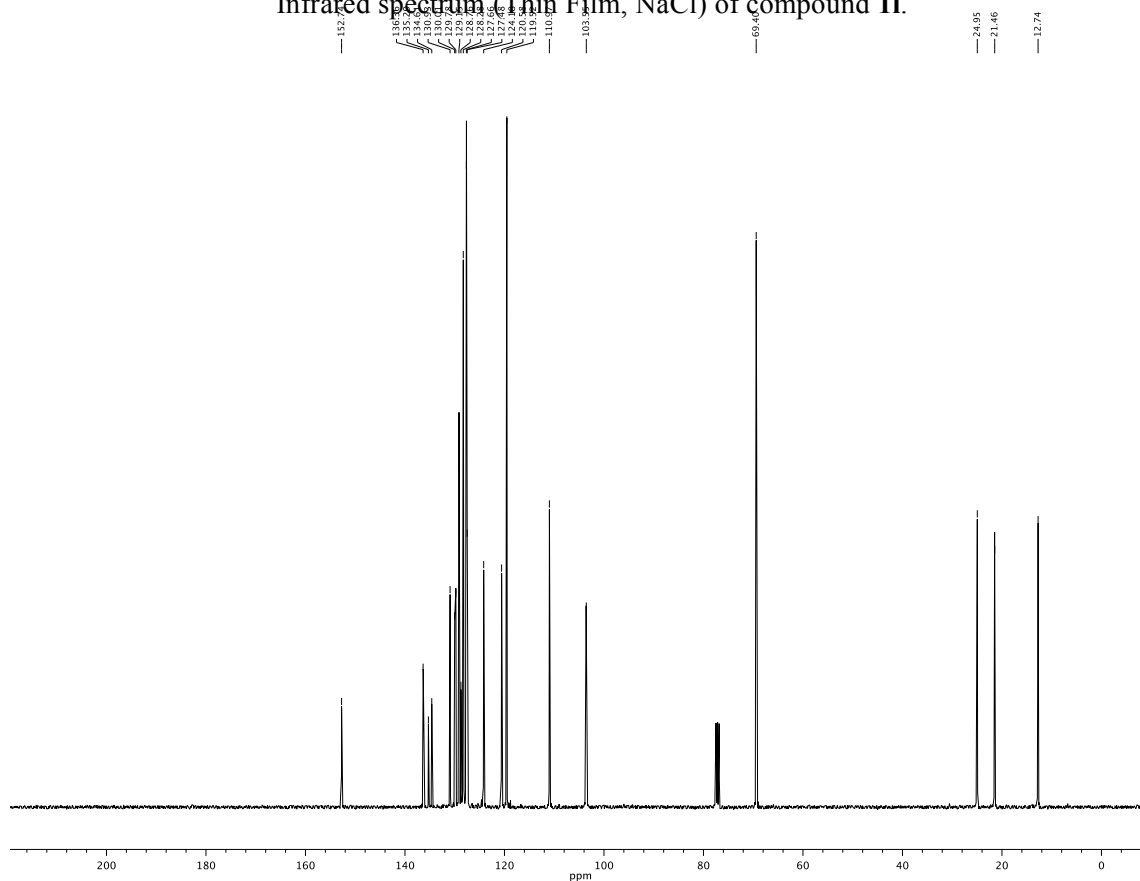
$^{19}\text{F}$  NMR (282 MHz,  $\text{CDCl}_3$ ) of compound **1j**.



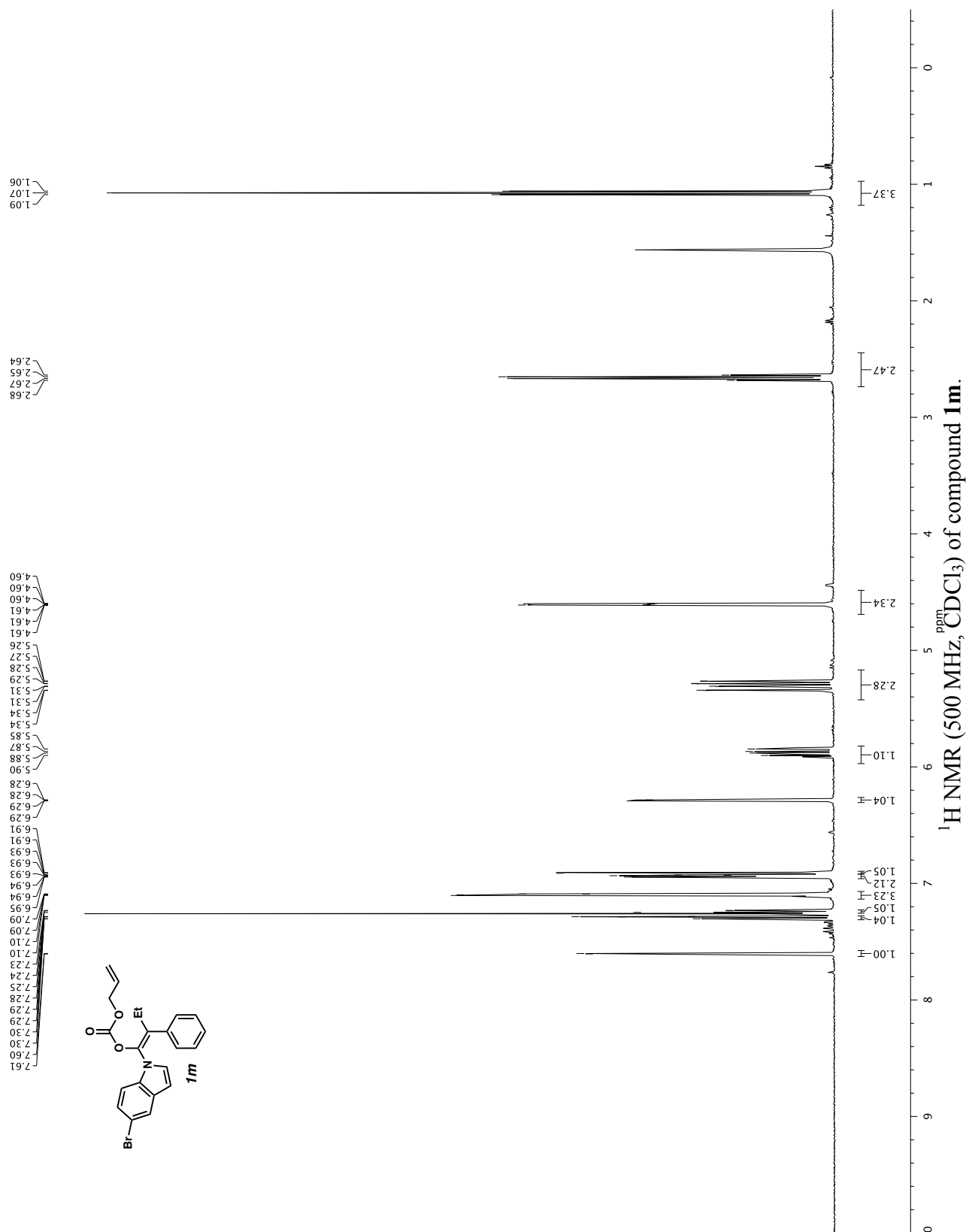
Infrared spectrum (Thin Film, NaCl) of compound **1k**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1k**.

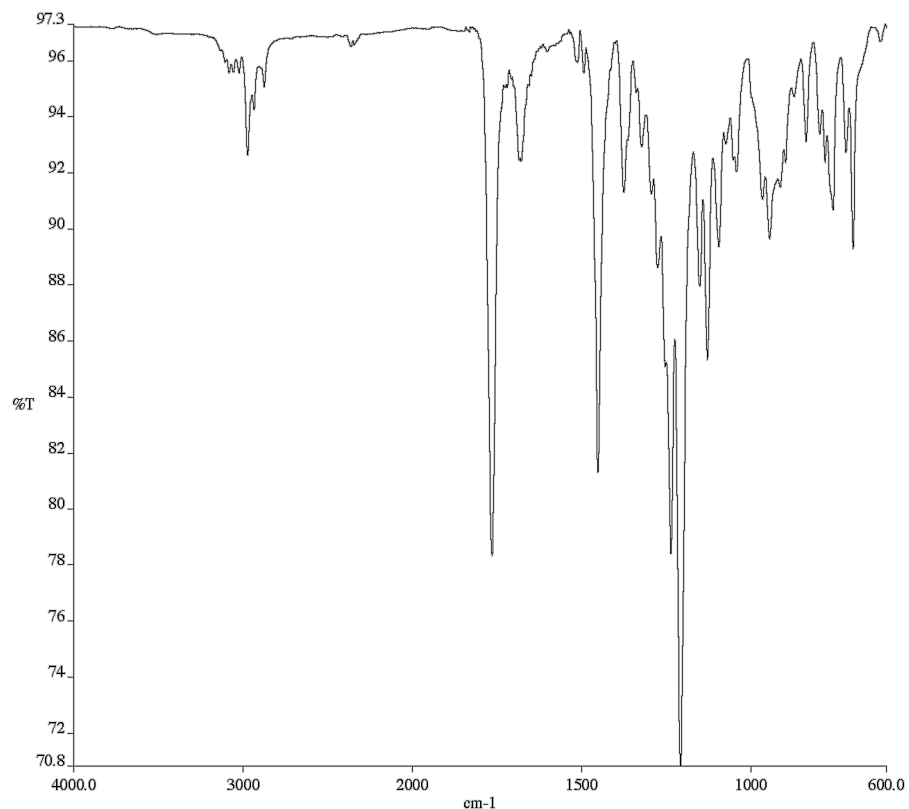
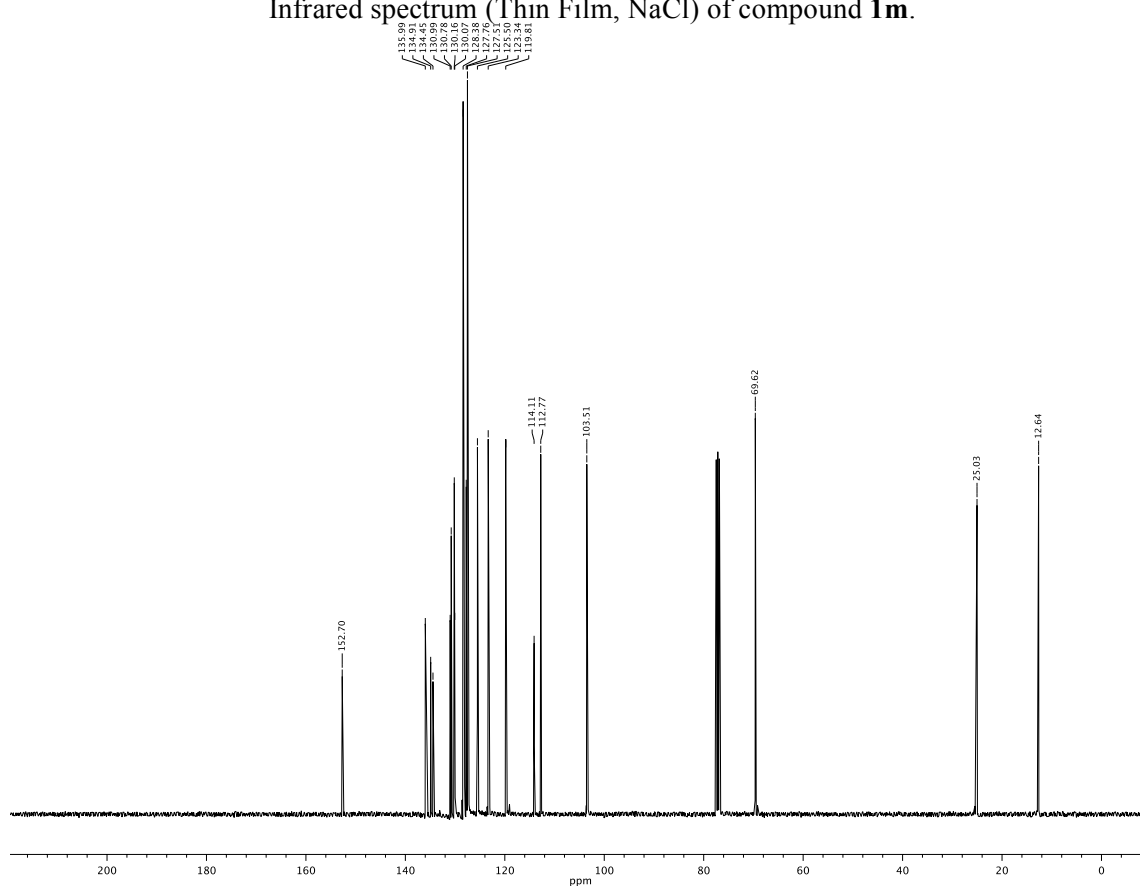
 $^{19}\text{F}$  NMR (282 MHz,  $\text{CDCl}_3$ ) of compound **1k**.

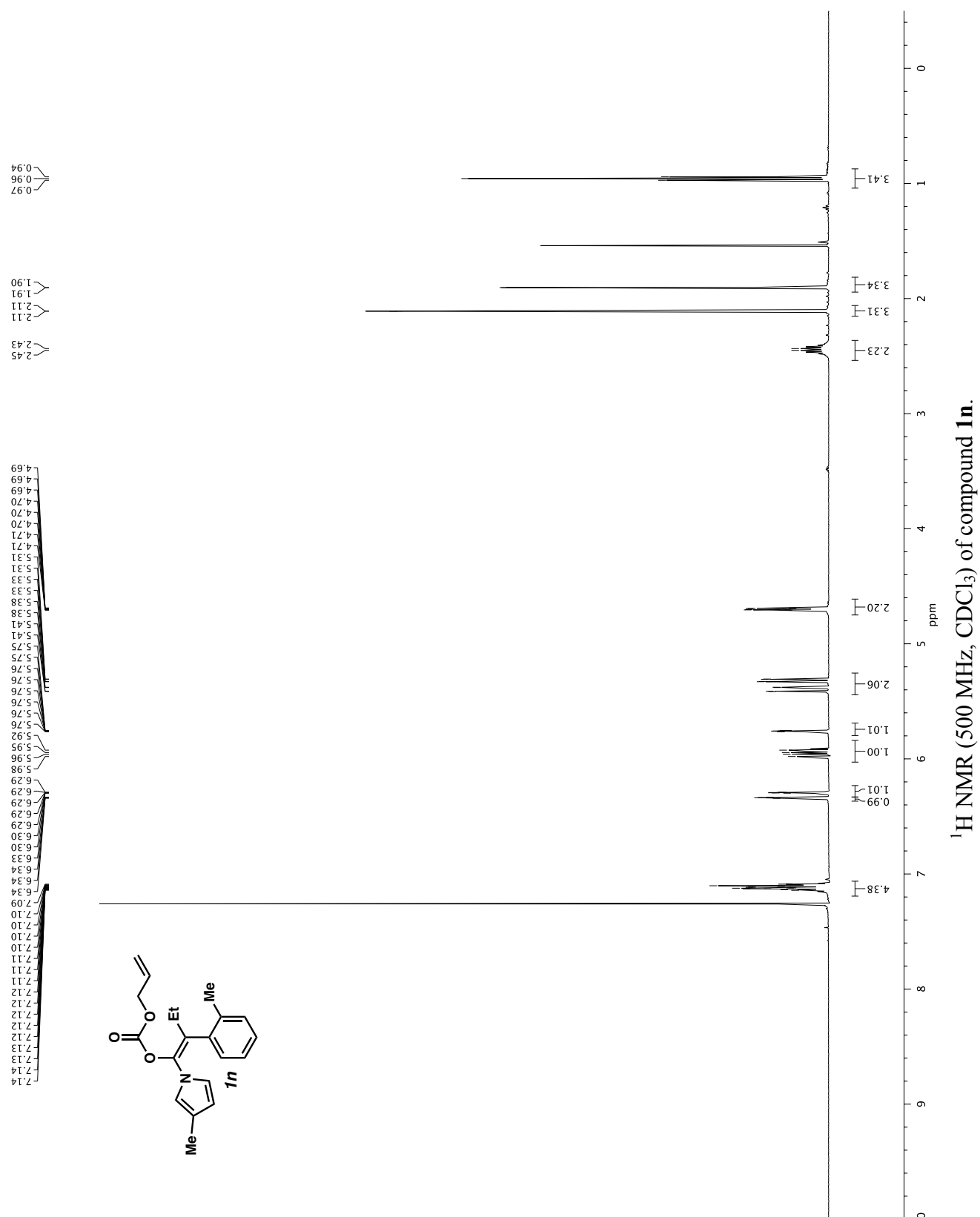


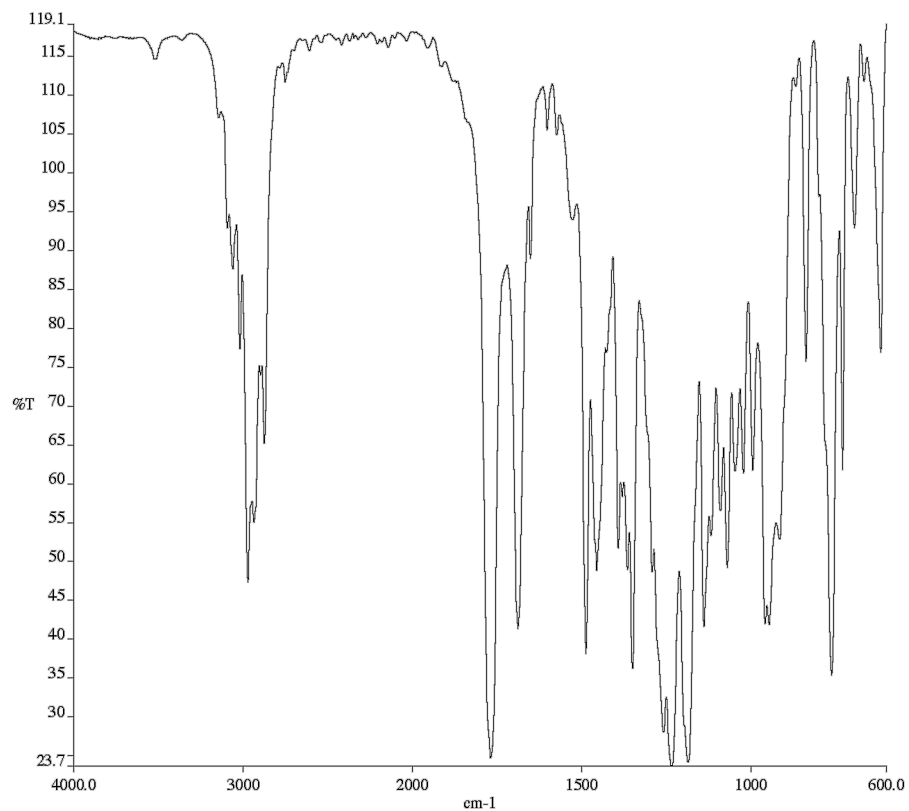
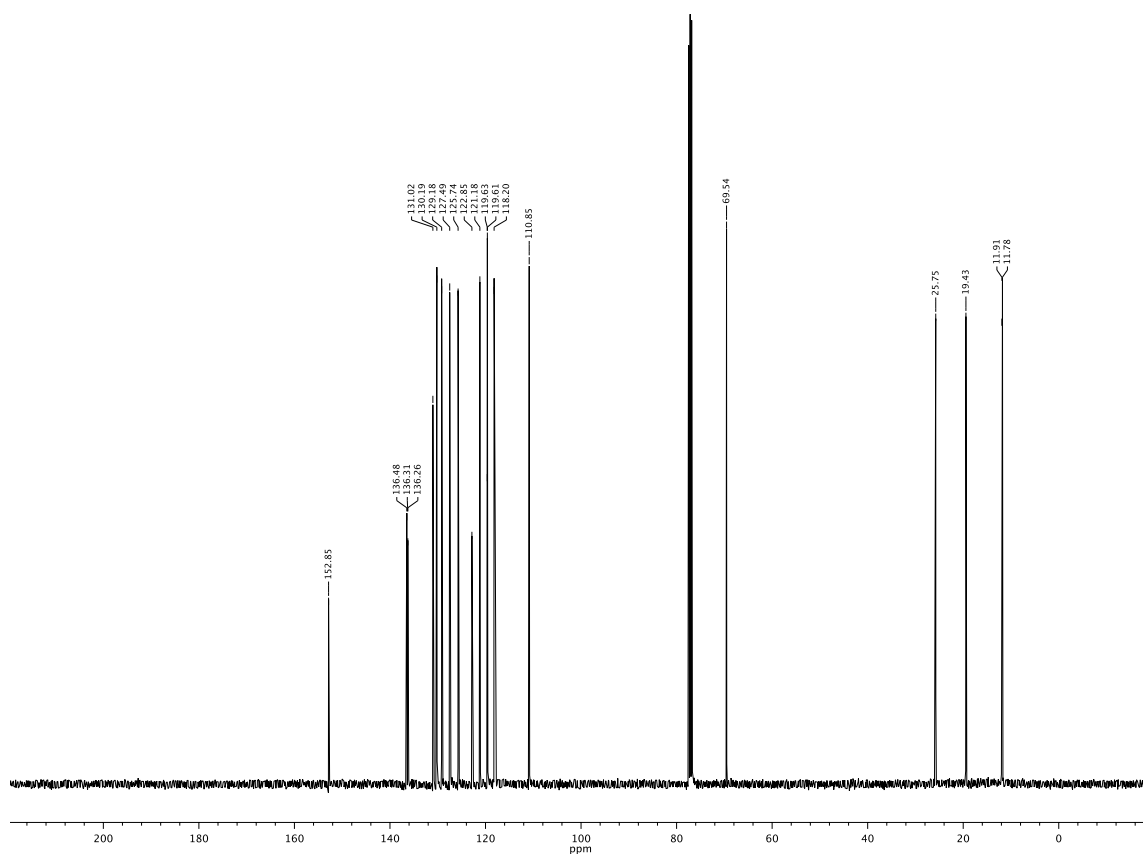
Infrared spectrum (Thin Film, NaCl) of compound **11**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **11**.

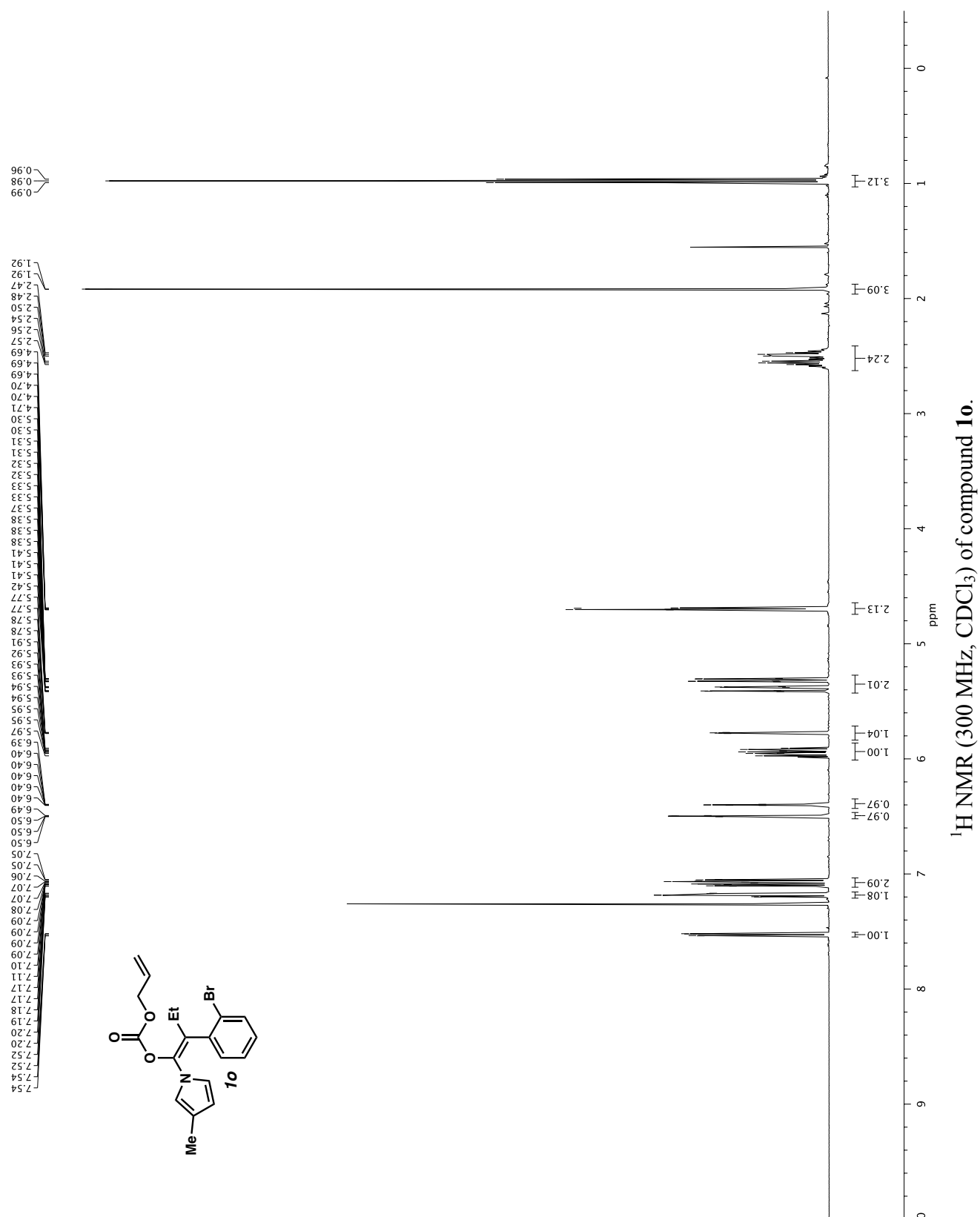


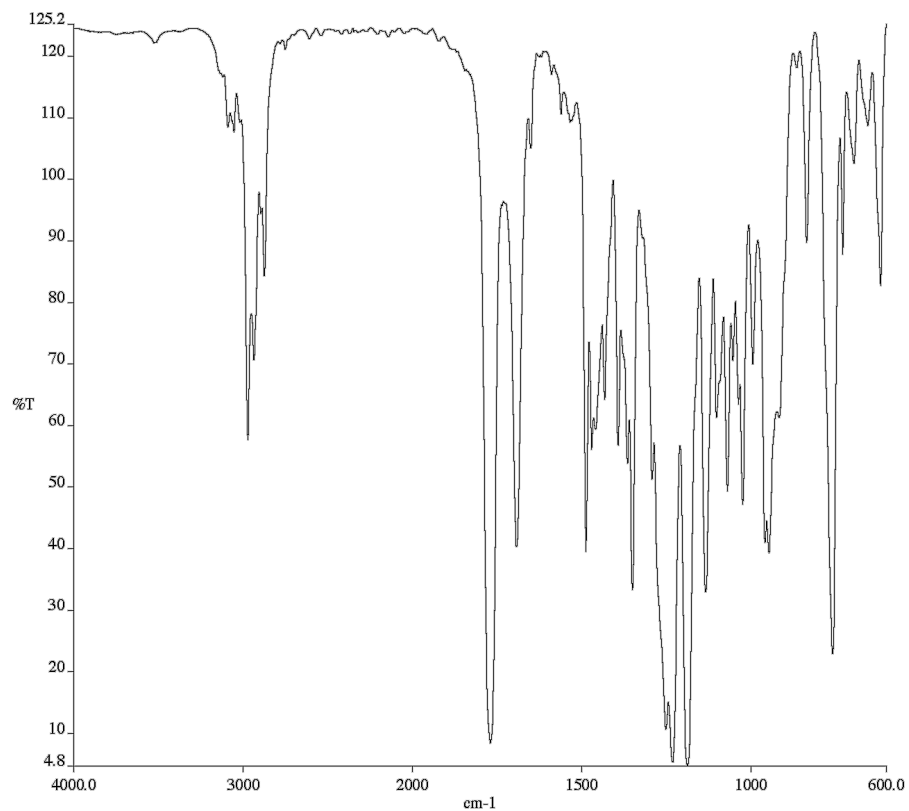
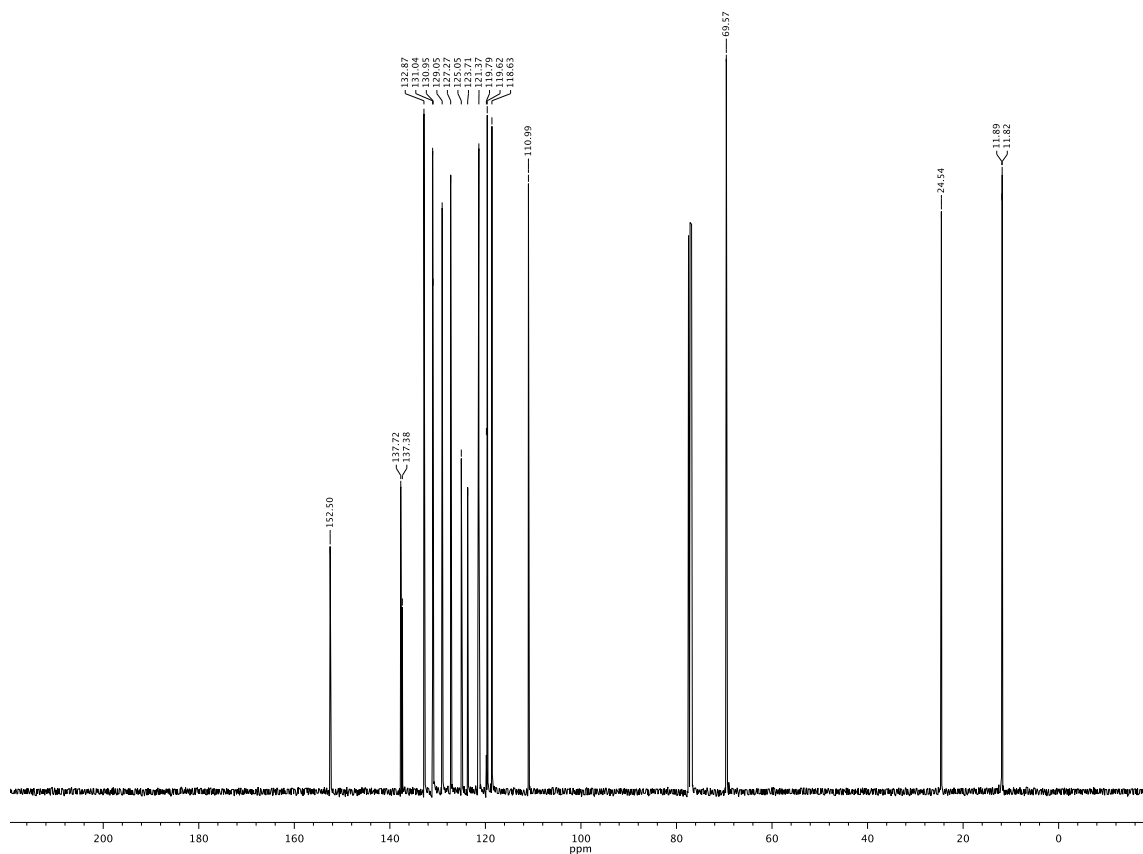


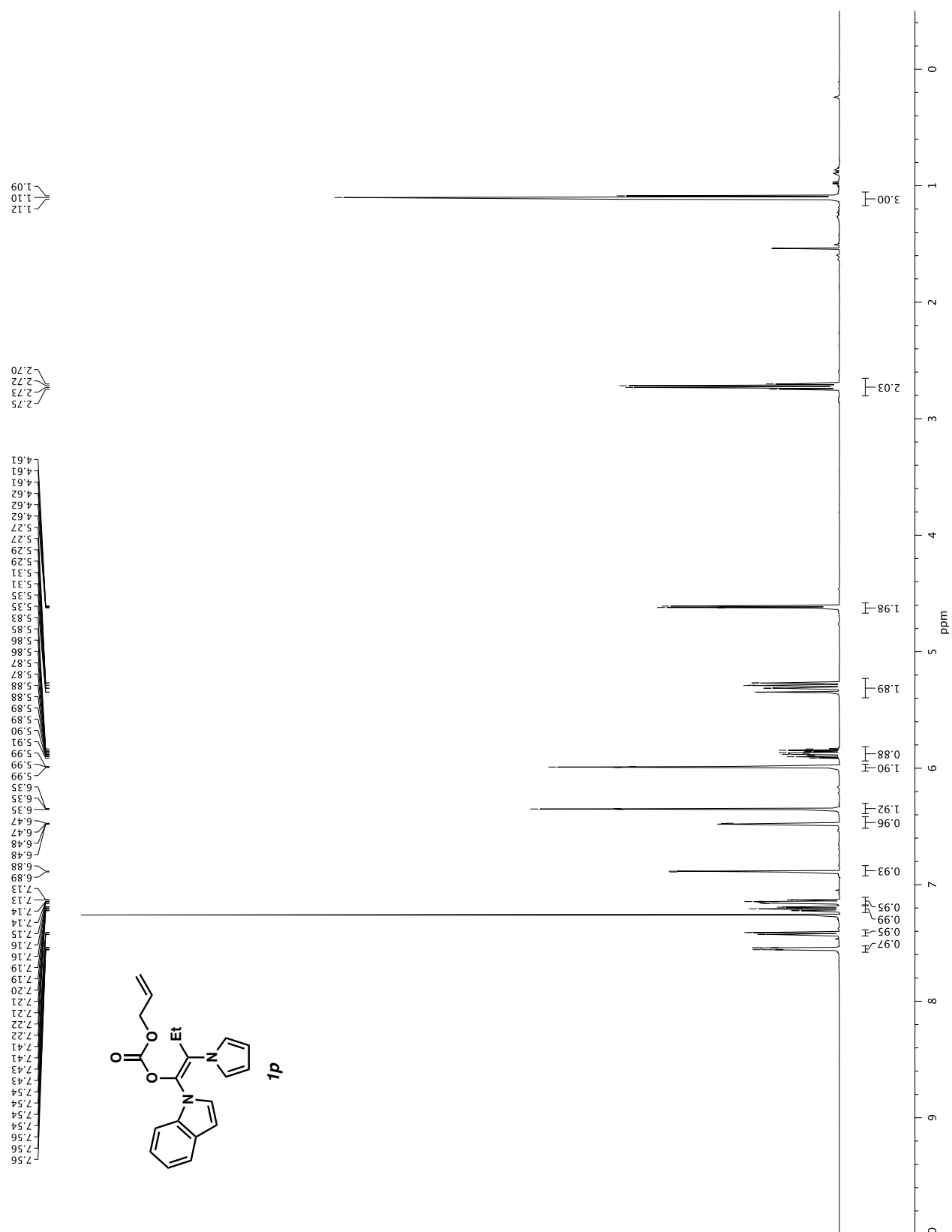
Infrared spectrum (Thin Film, NaCl) of compound **1m**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1m**.

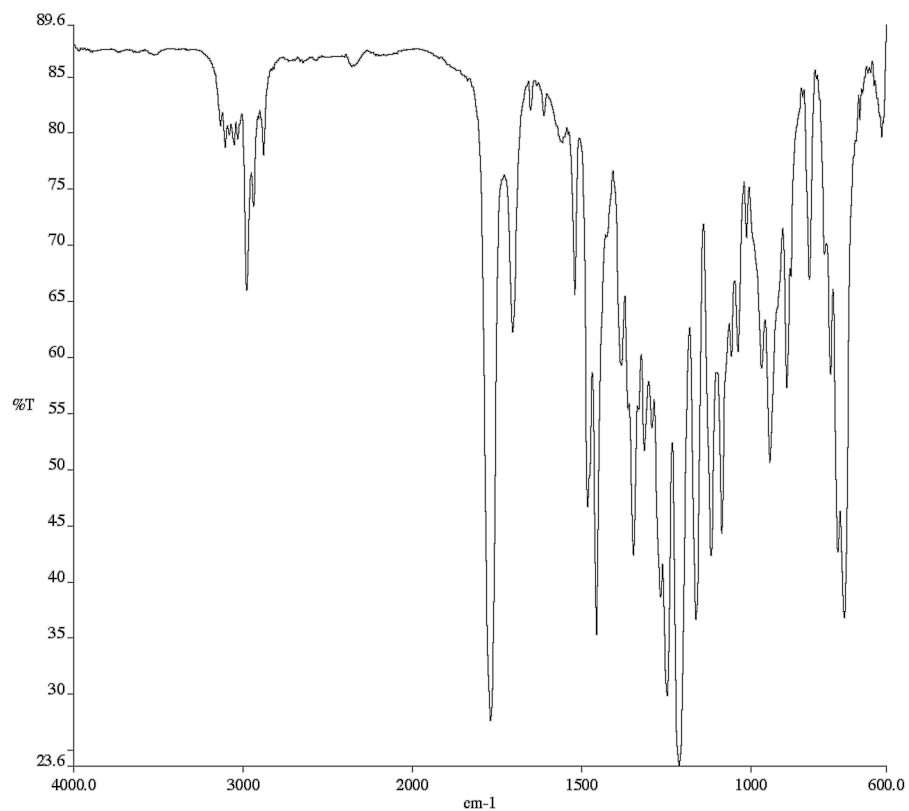
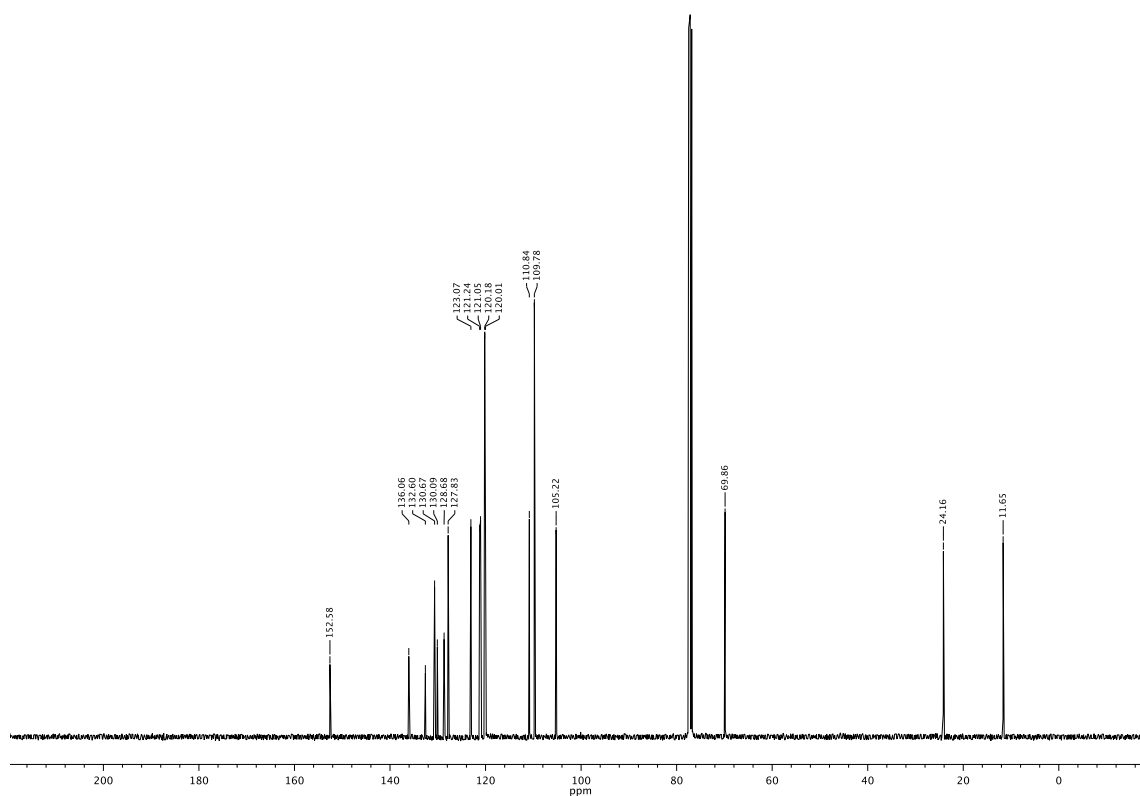


Infrared spectrum (Thin Film, NaCl) of compound **1n**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1n**.

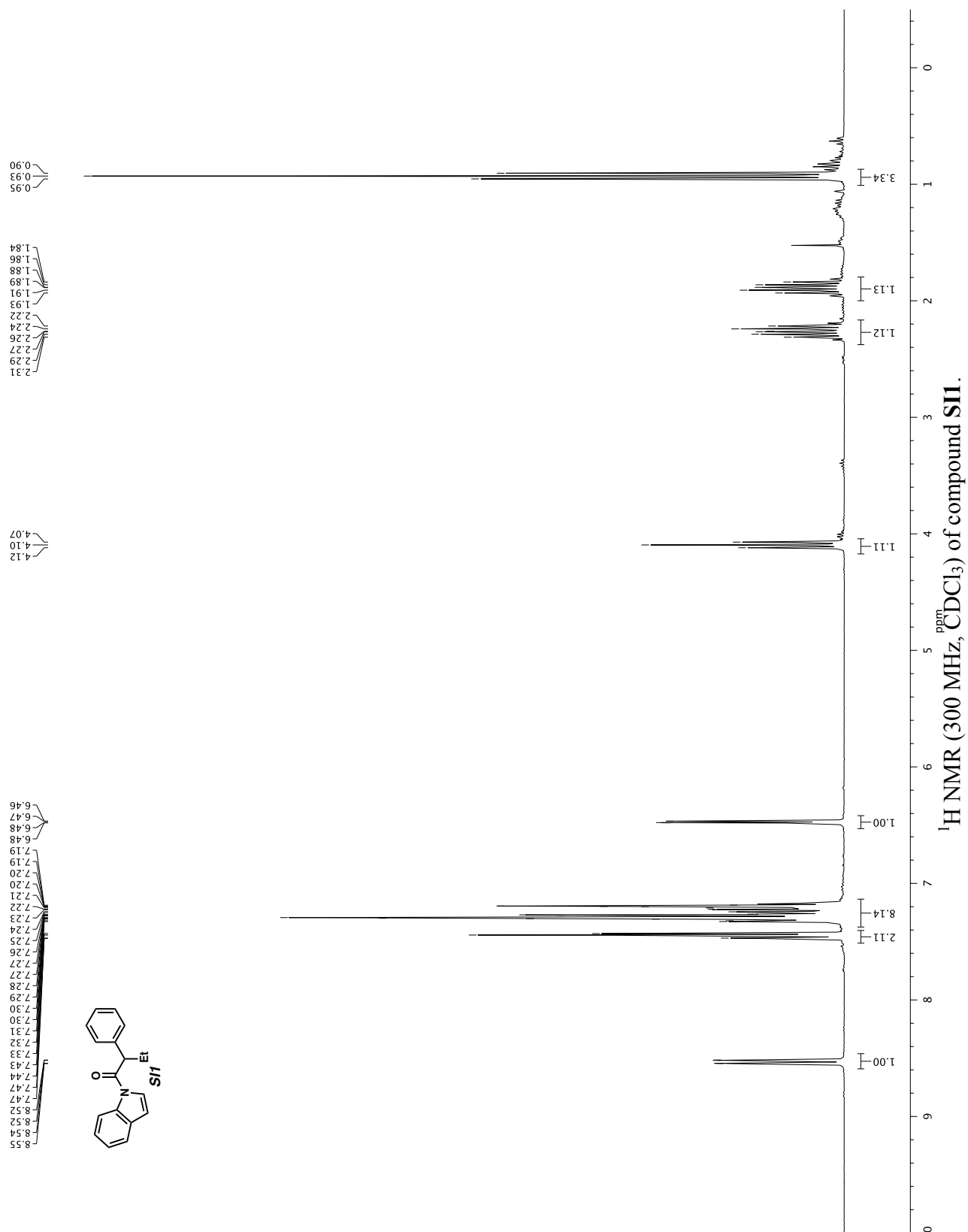


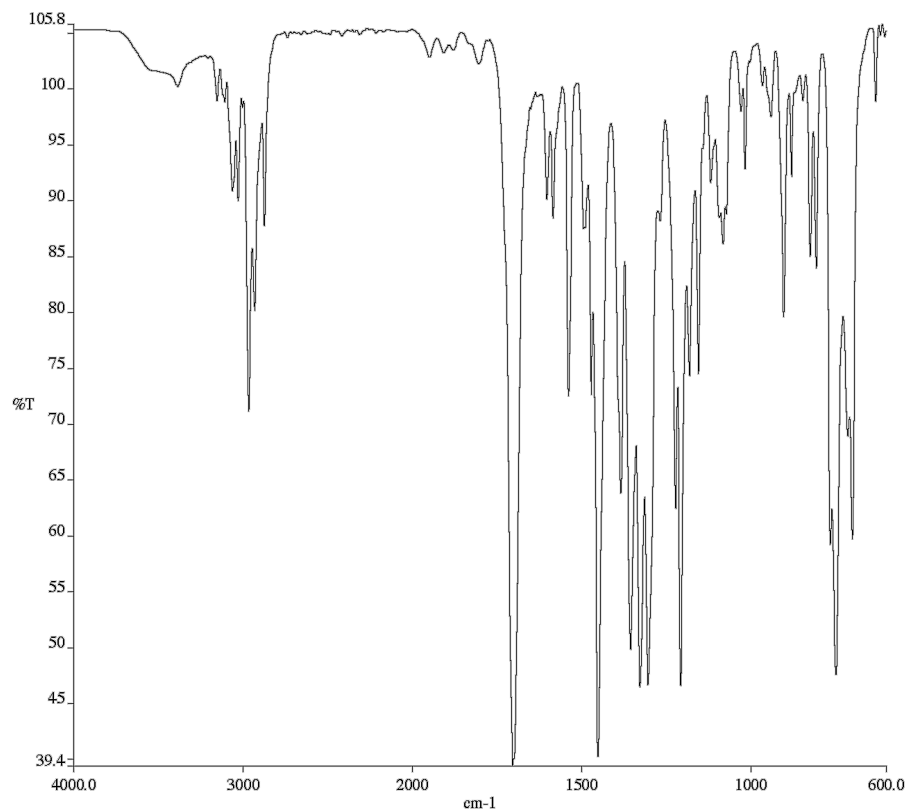
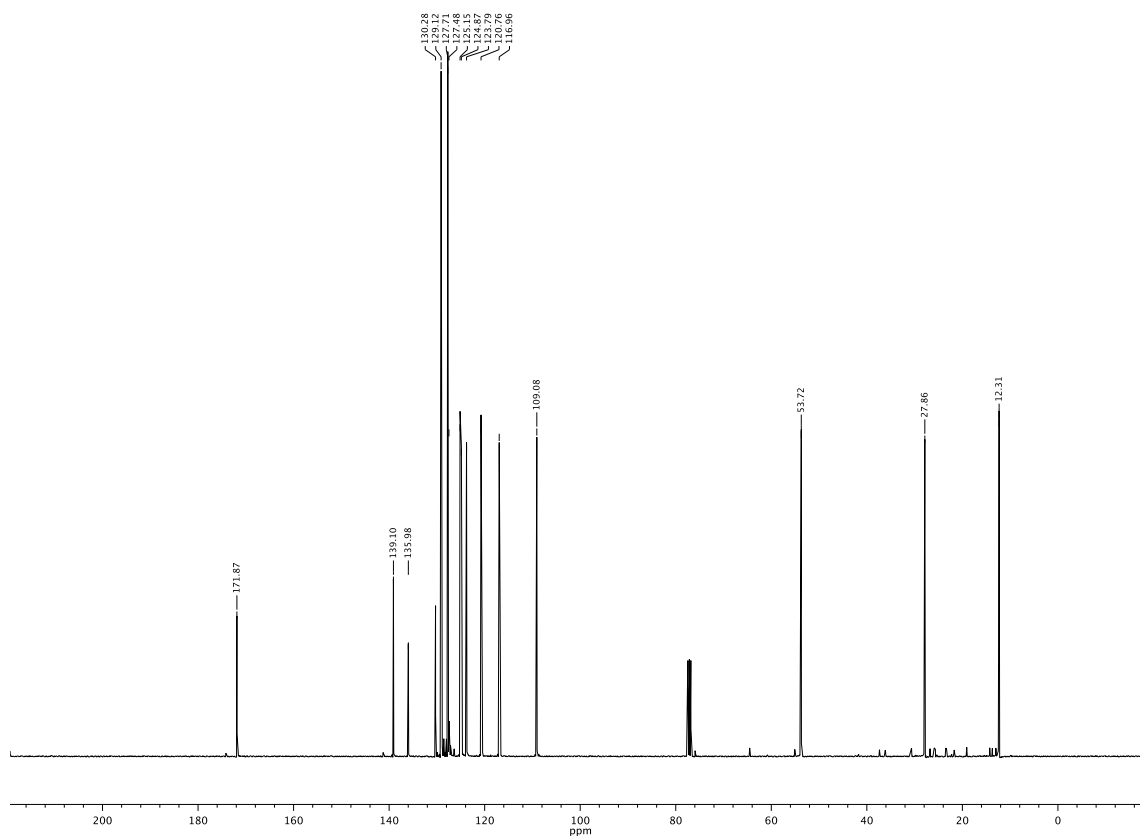
Infrared spectrum (Thin Film, NaCl) of compound **1o**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1o**.

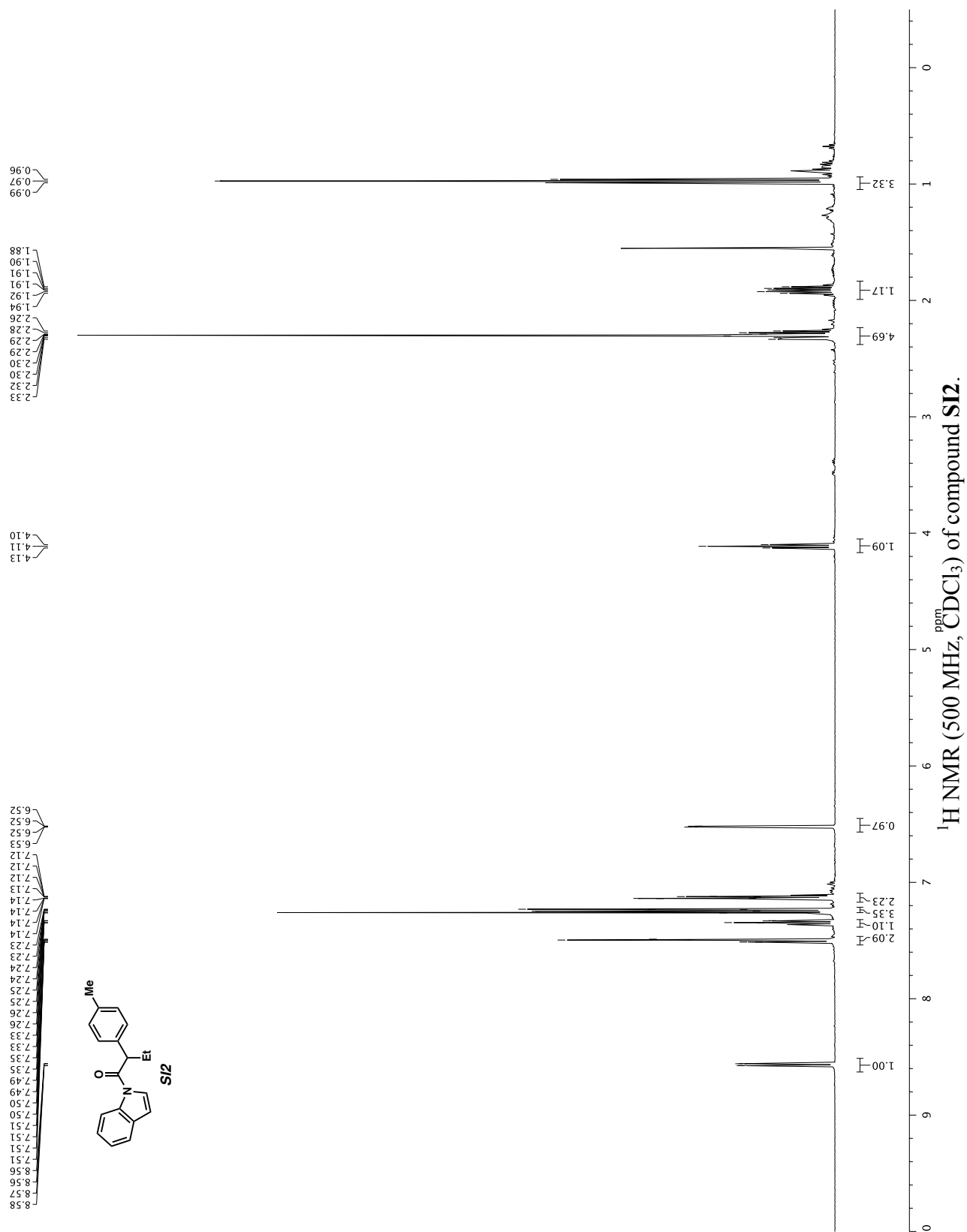


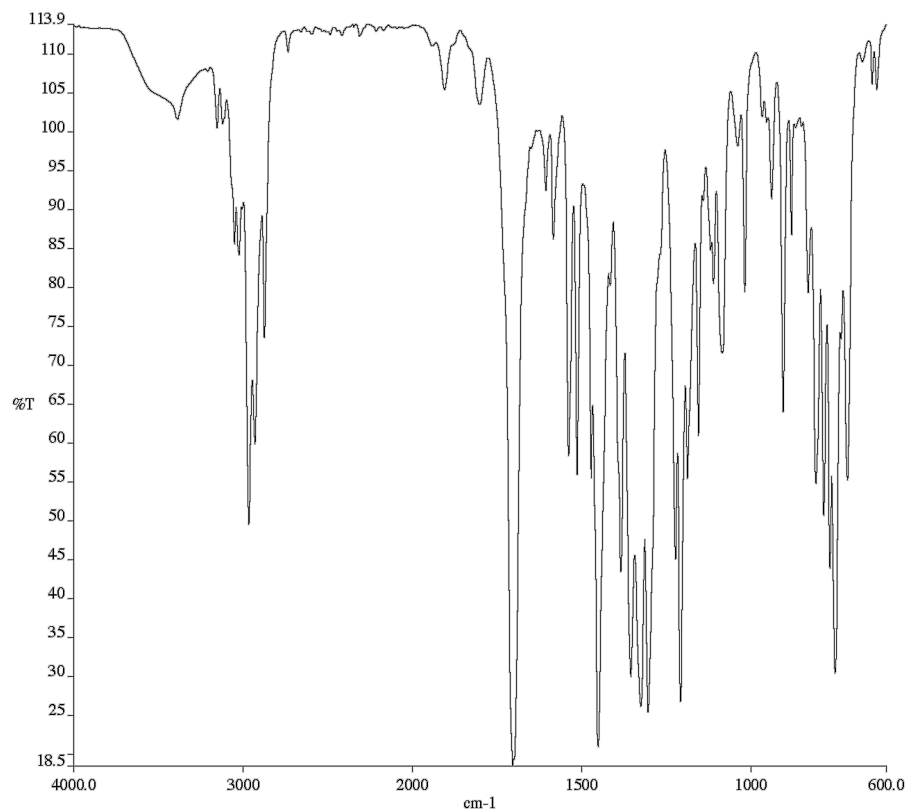
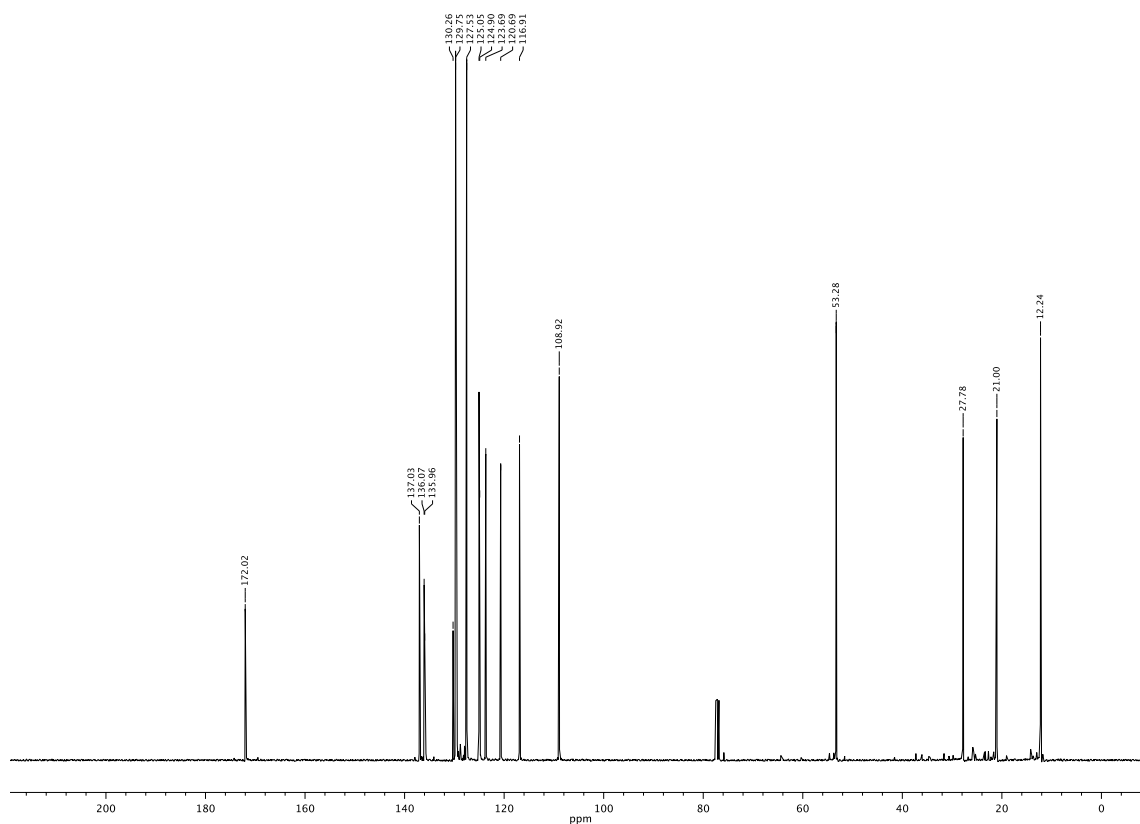
Infrared spectrum (Thin Film, NaCl) of compound **1p**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **1p**.

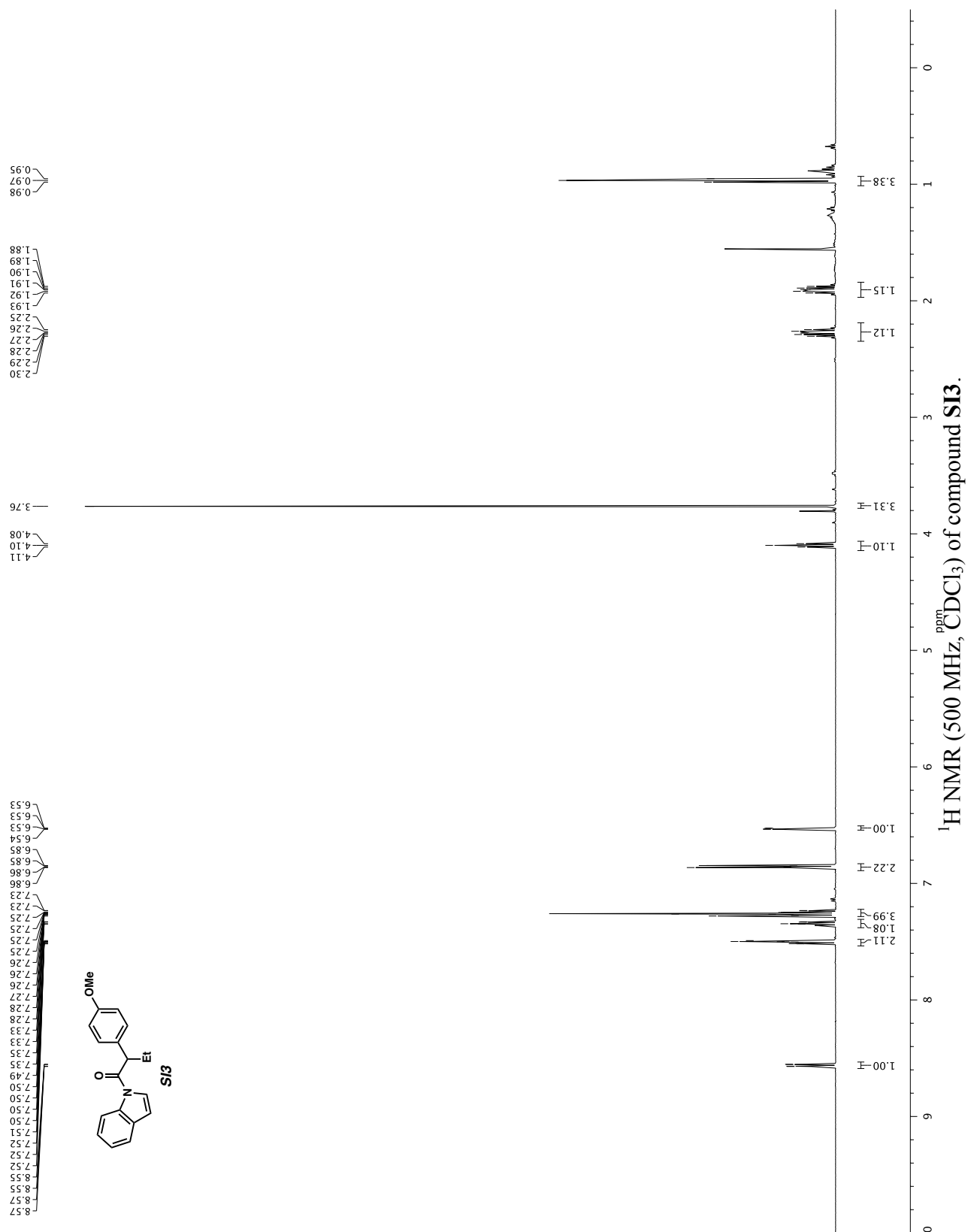


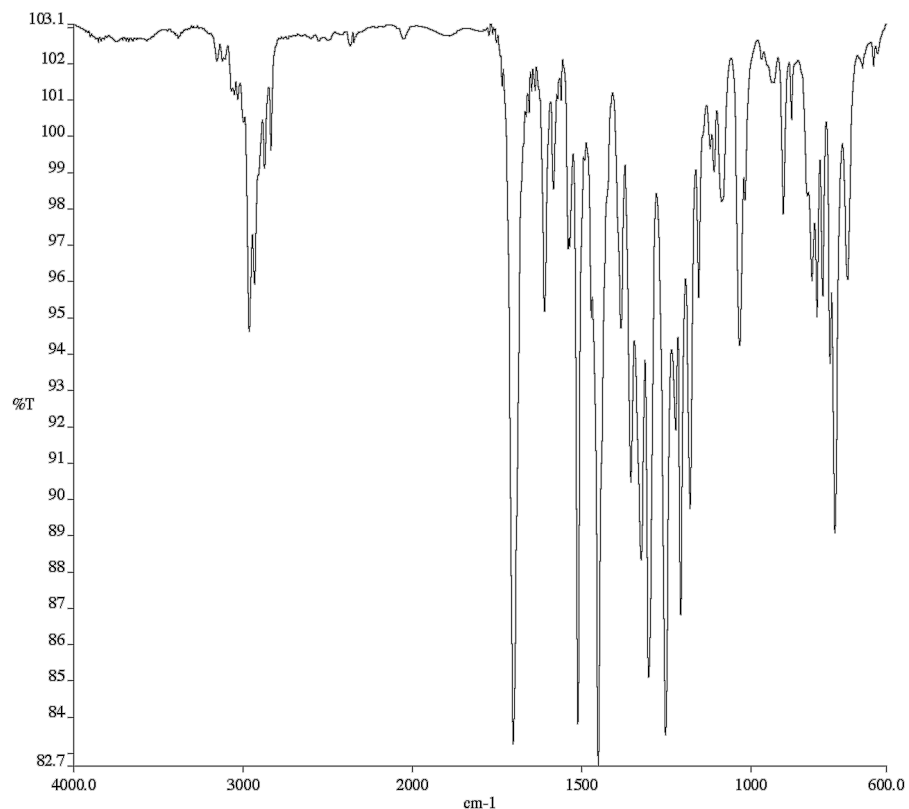
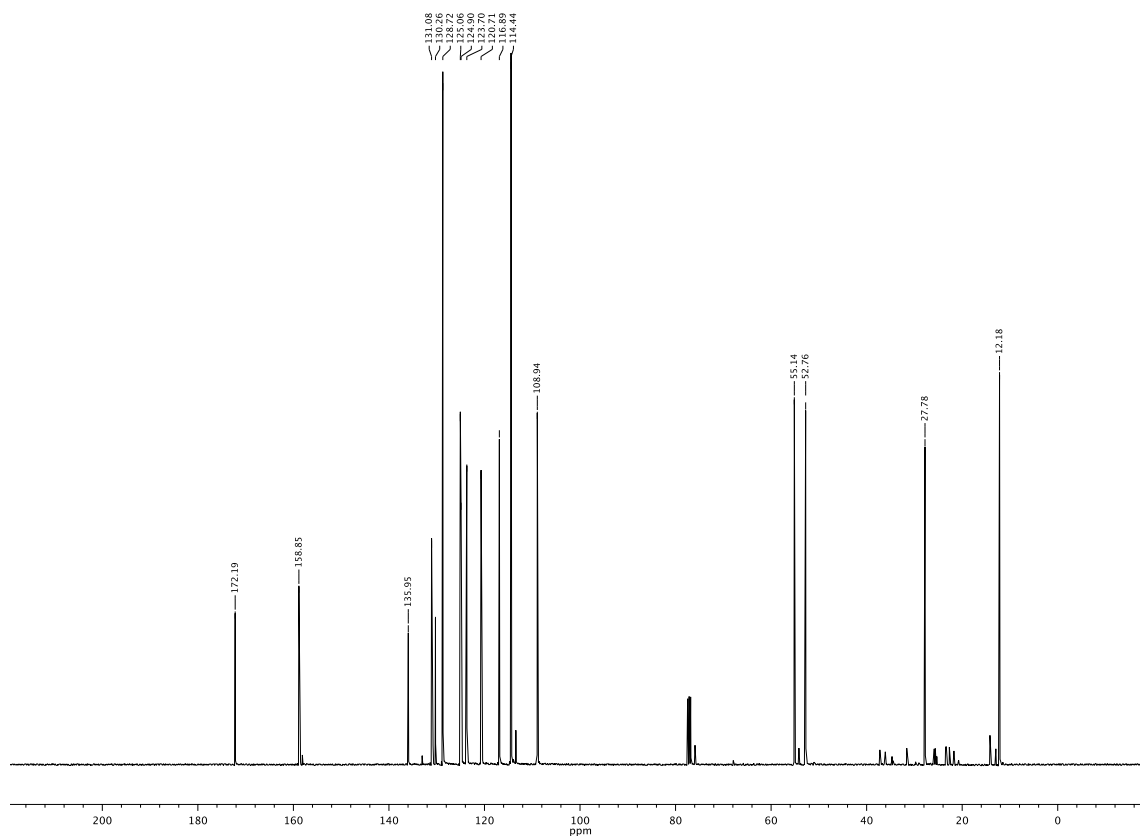


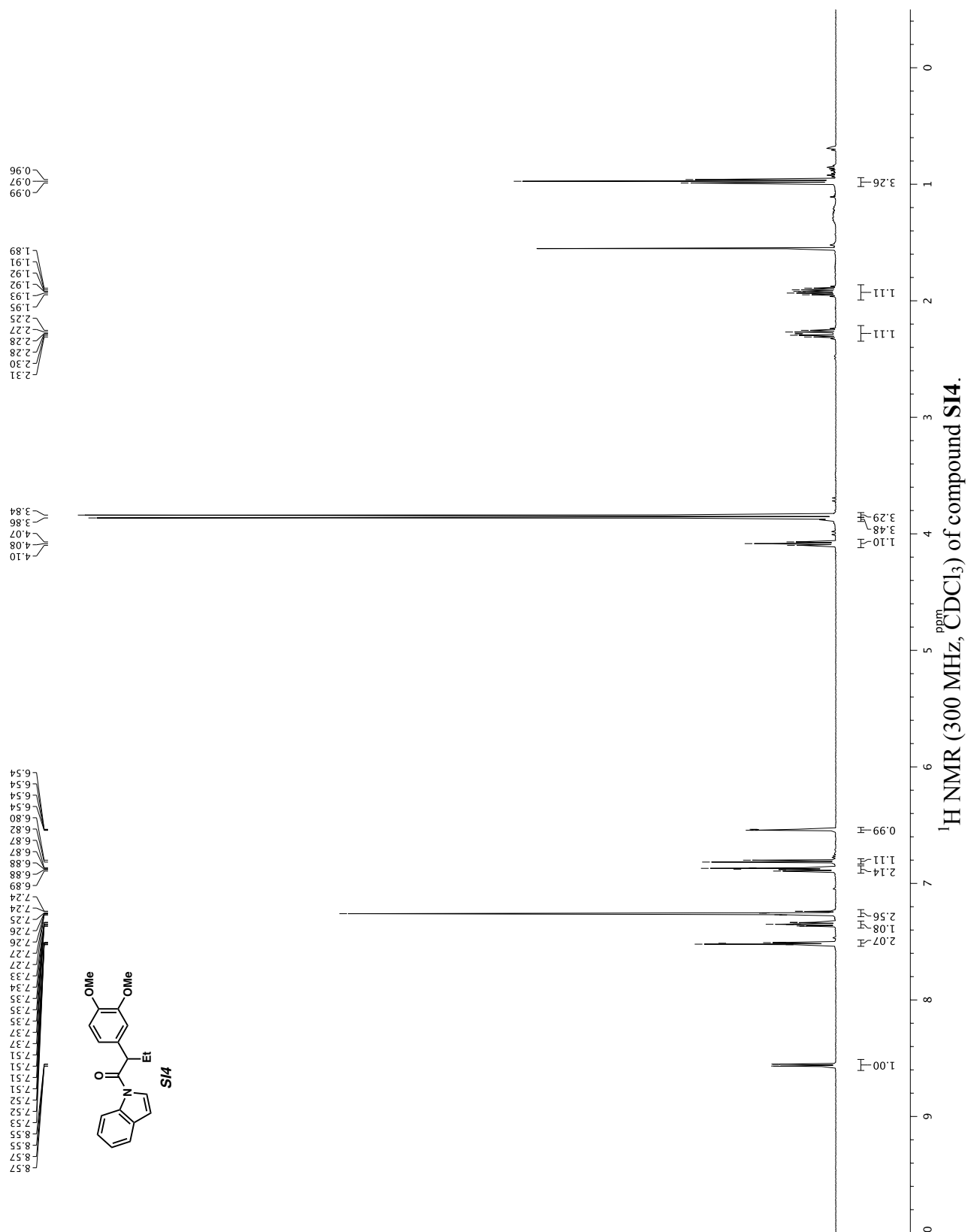
Infrared spectrum (Thin Film, NaCl) of compound **SI1**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI1**.

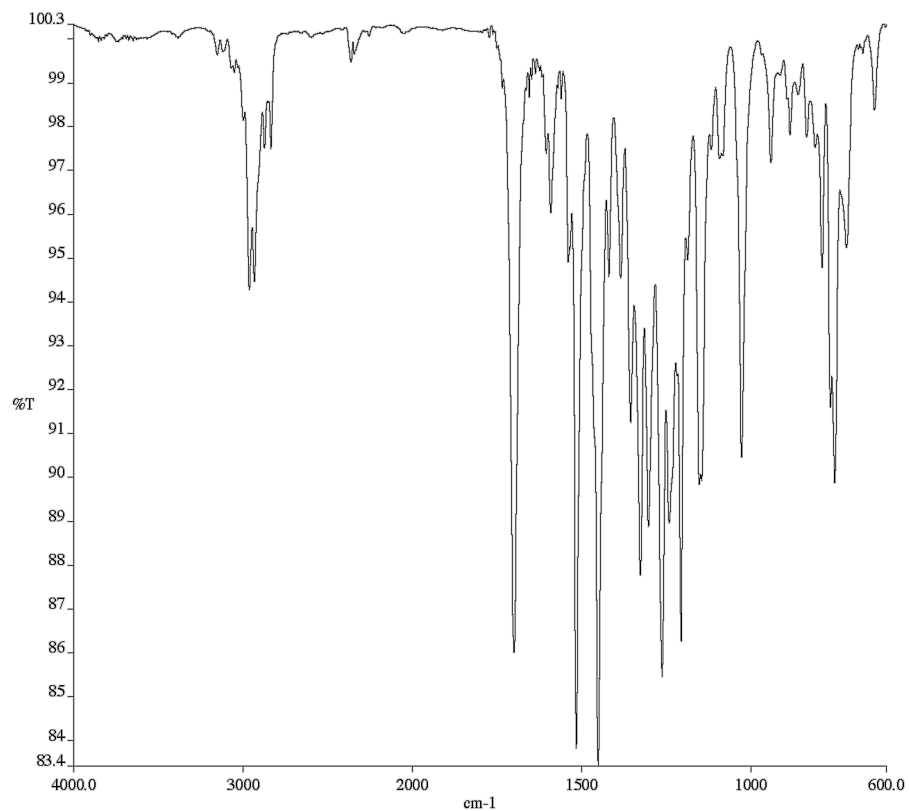
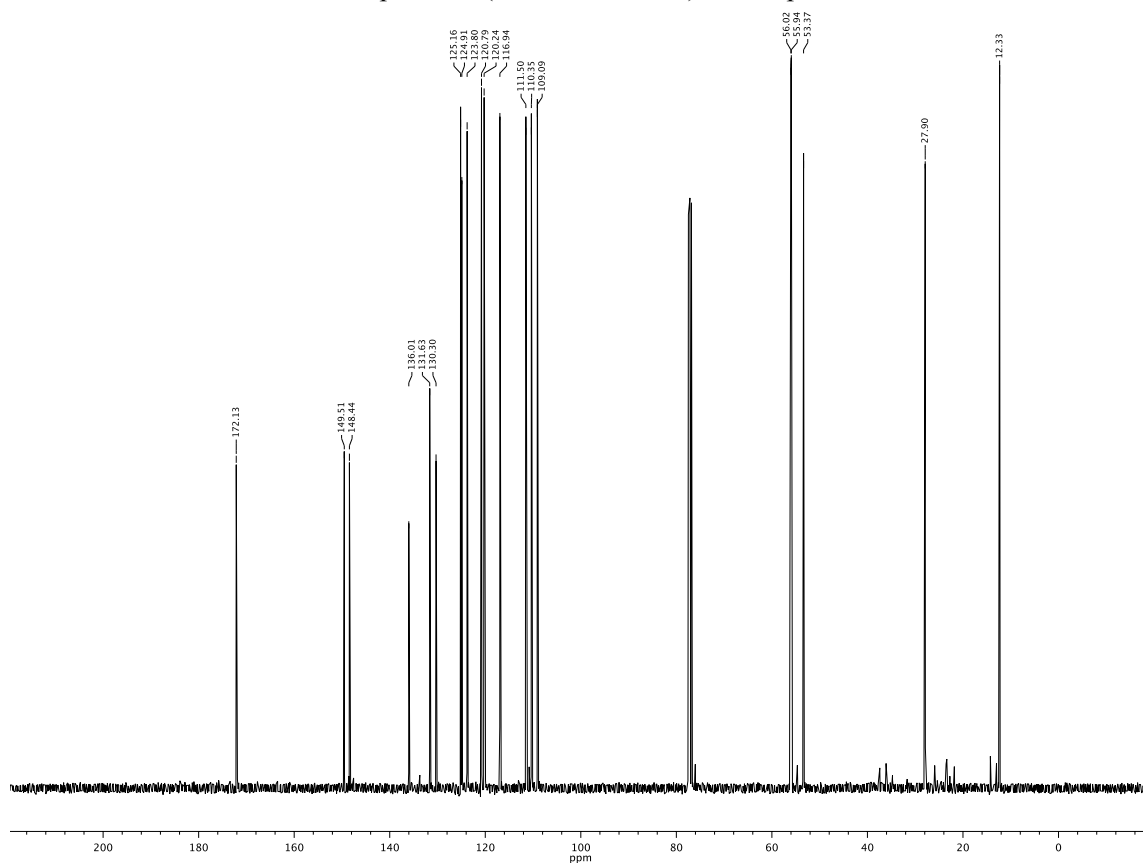


Infrared spectrum (Thin Film, NaCl) of compound **SI2**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI2**.

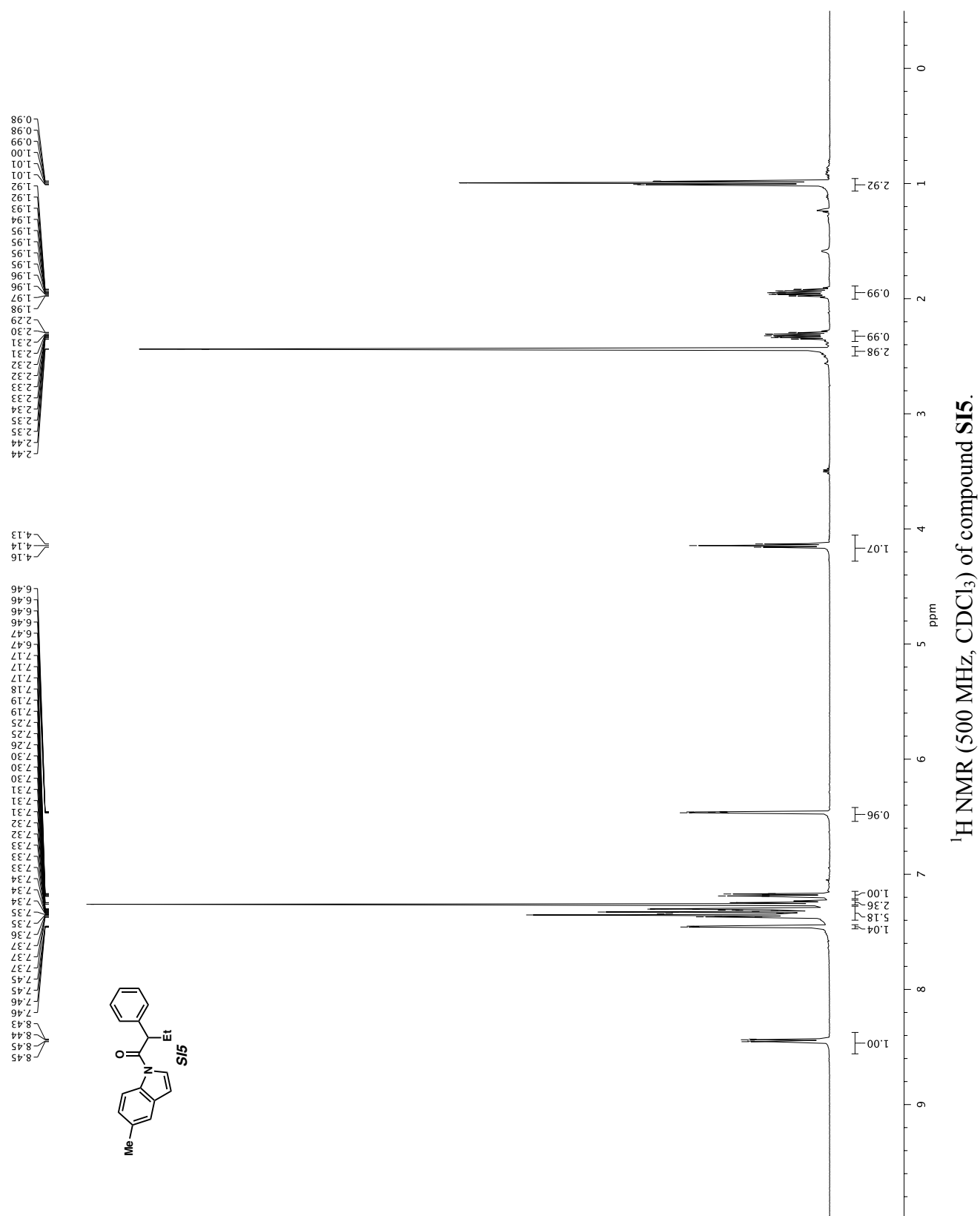


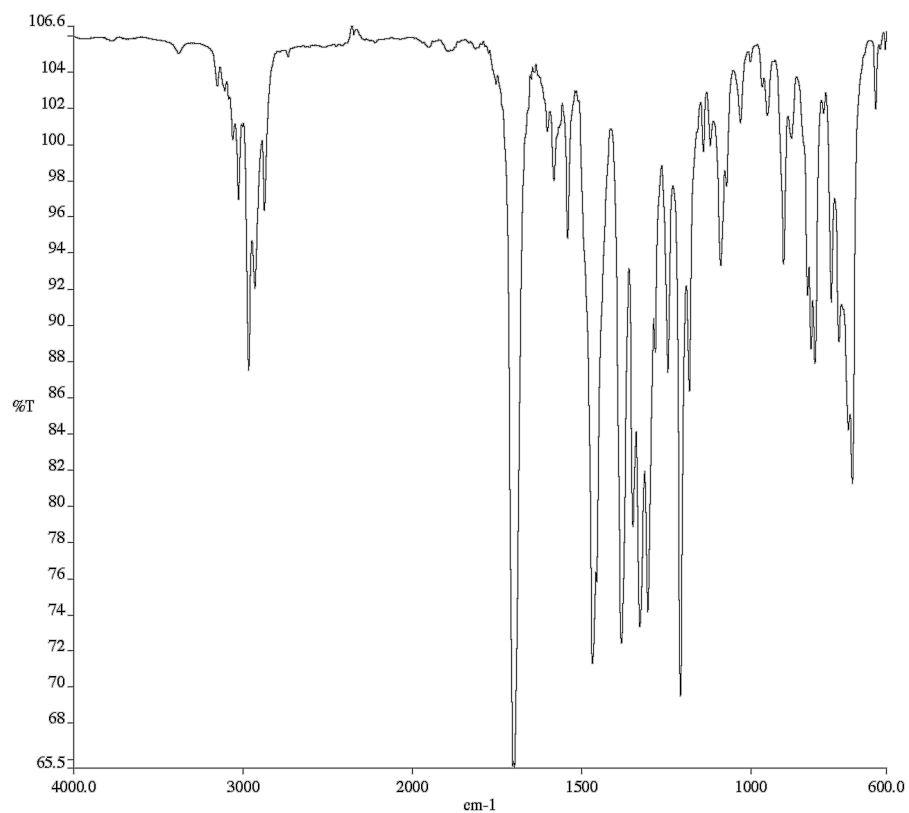
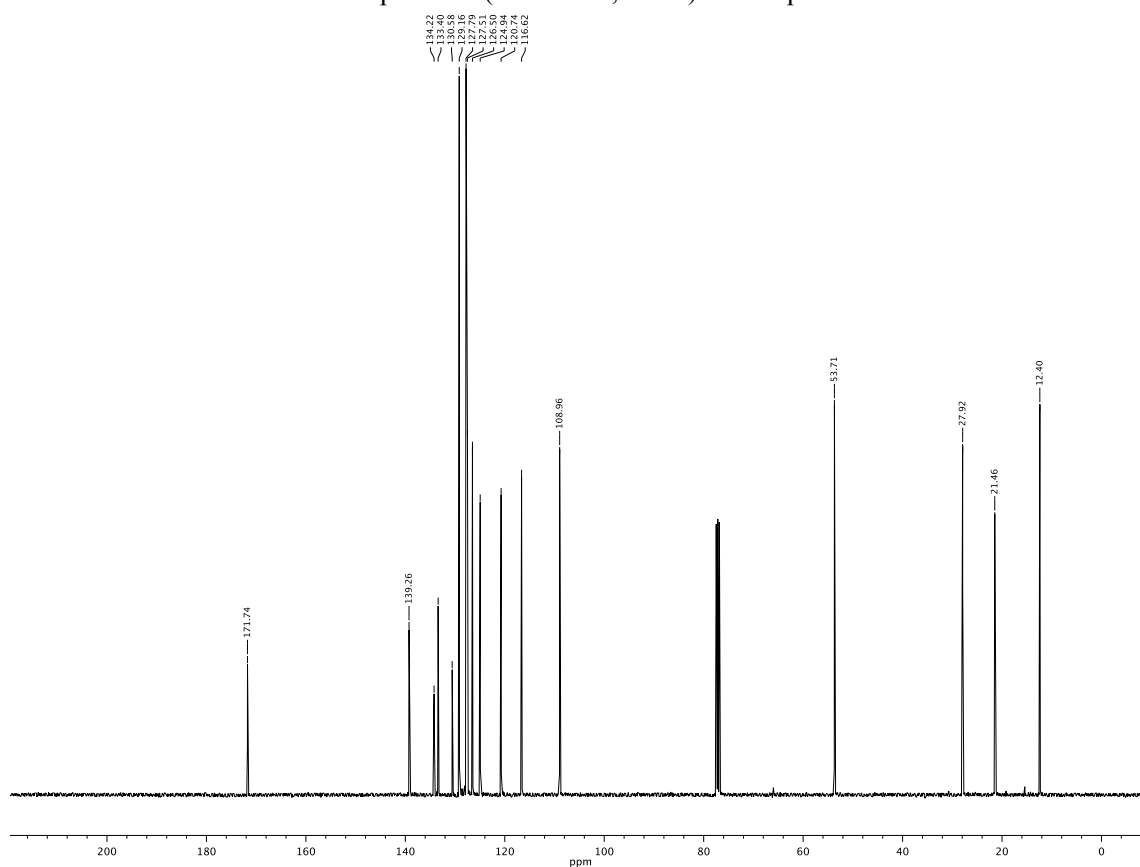
Infrared spectrum (Thin Film, NaCl) of compound **SI3**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI3**.

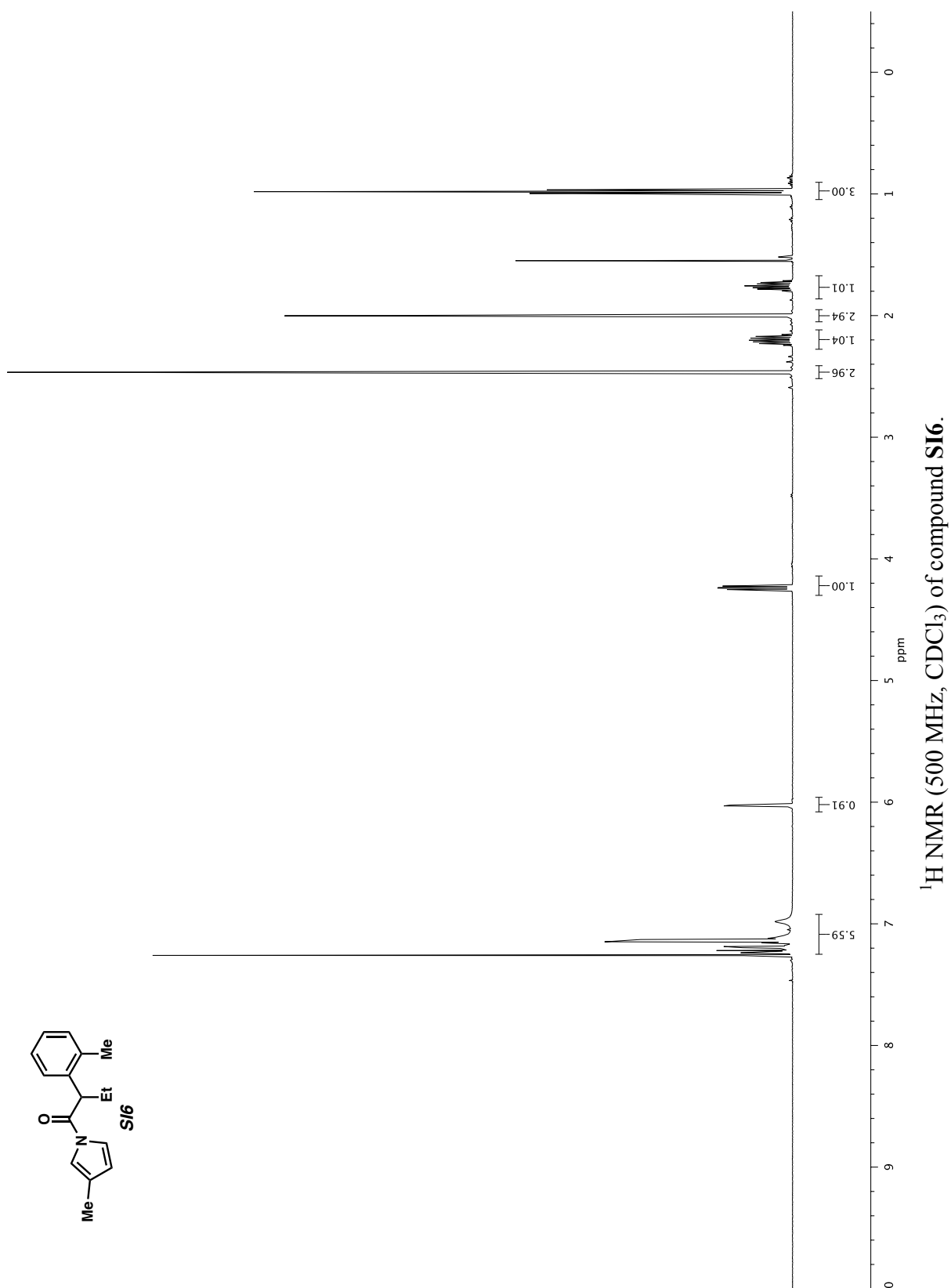


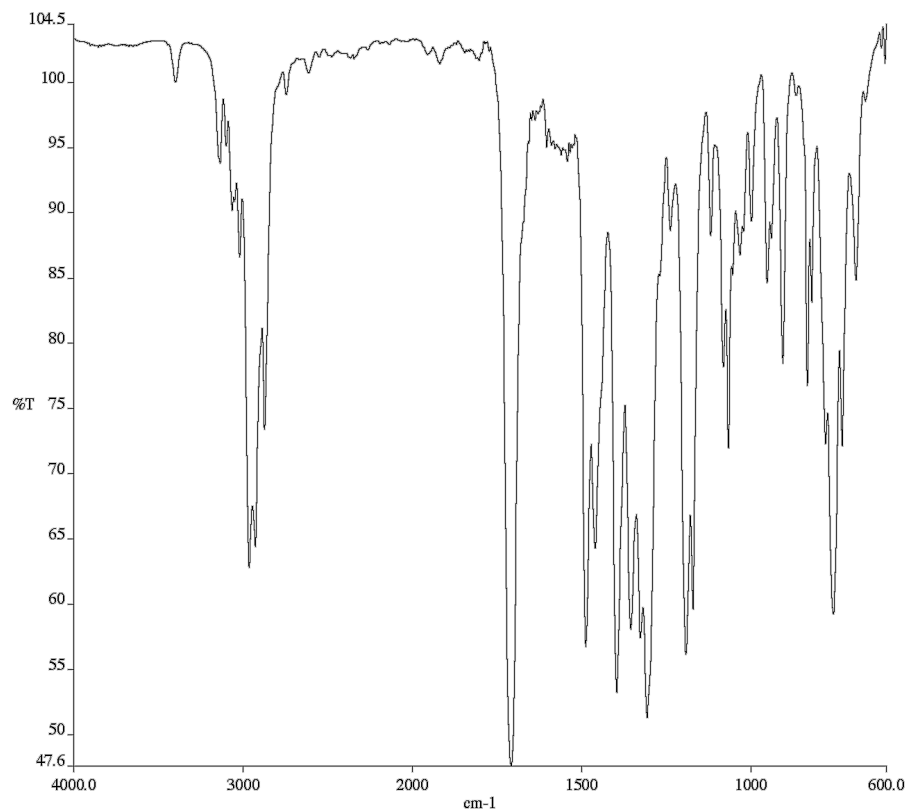
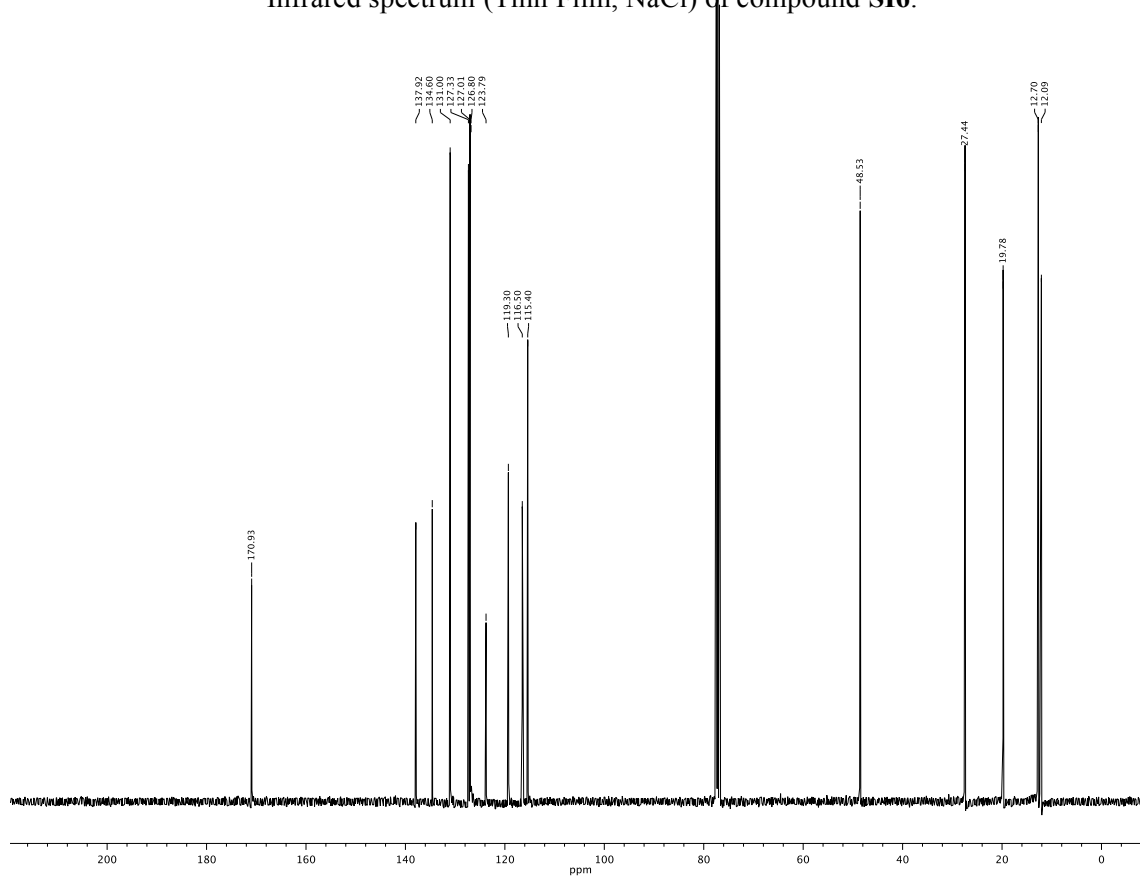
Infrared spectrum (Thin Film, NaCl) of compound **SI4**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI4**.

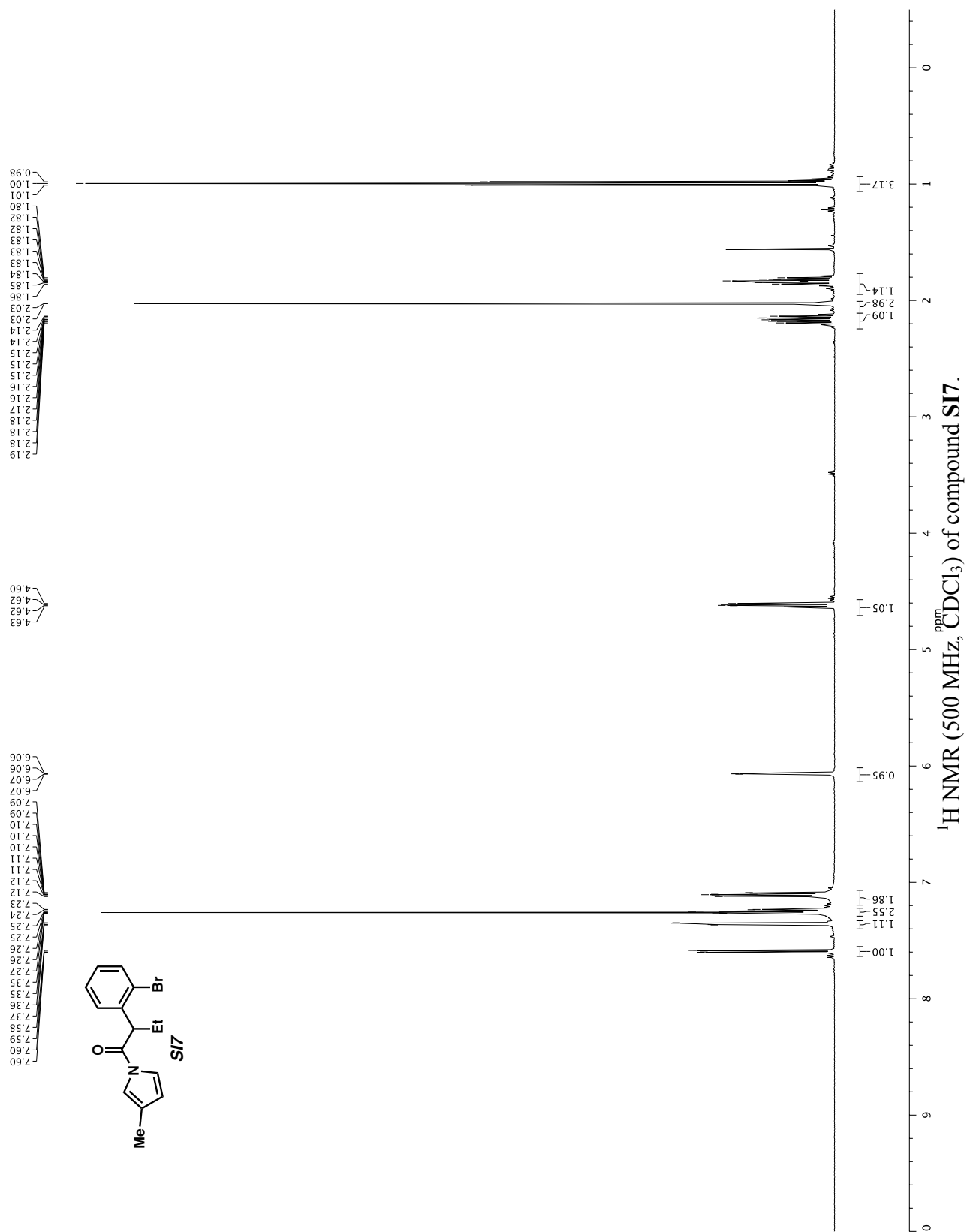


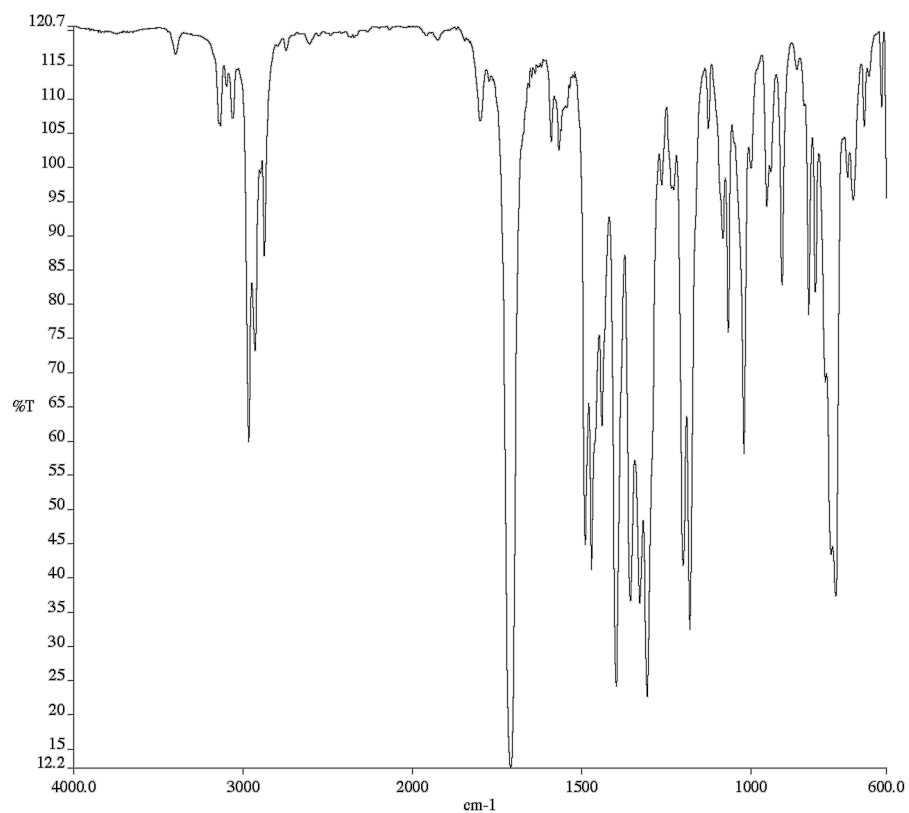
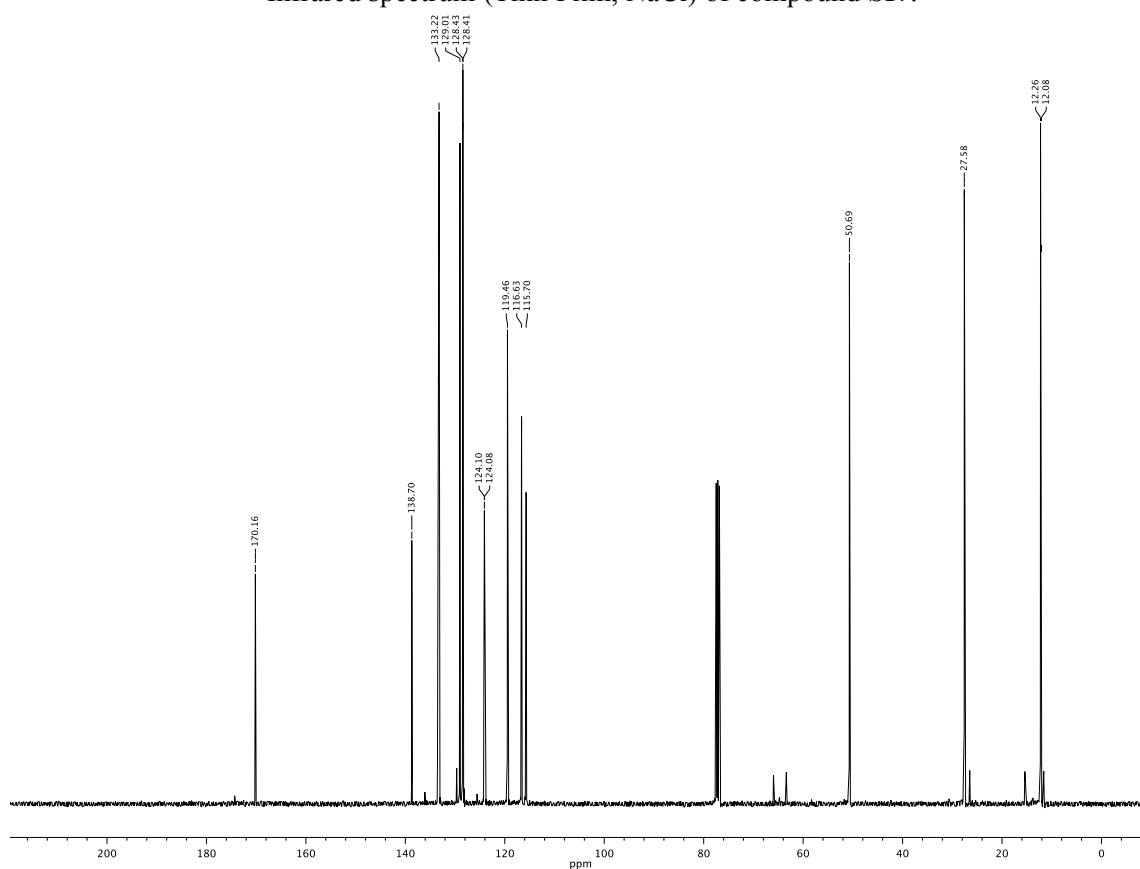


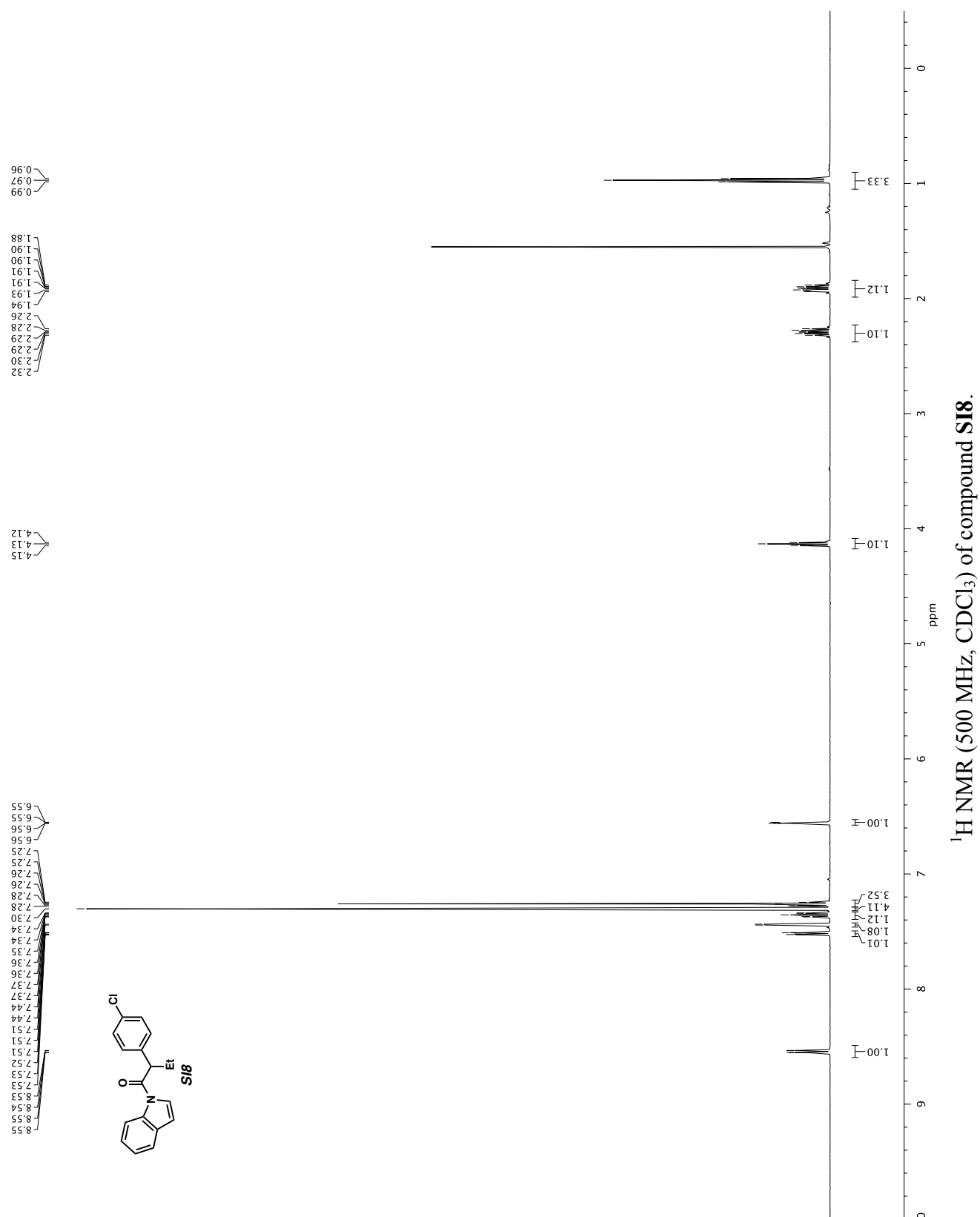
Infrared spectrum (Thin Film, NaCl) of compound **SI5**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI5**.

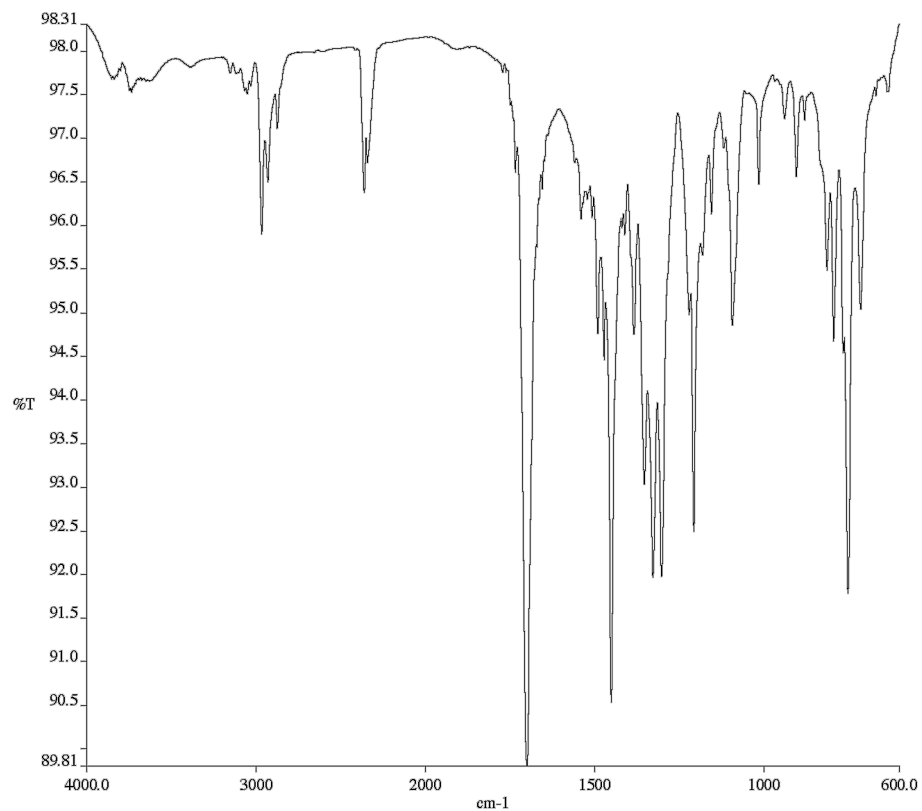
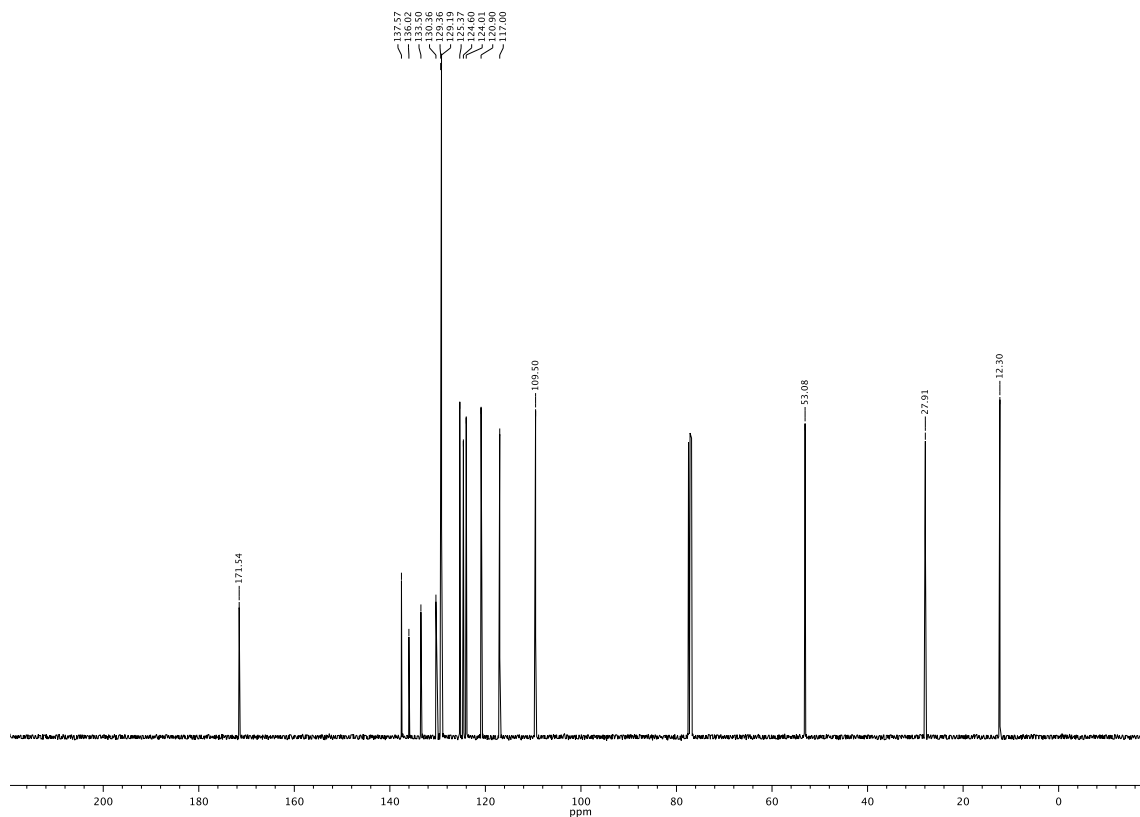


Infrared spectrum (Thin Film, NaCl) of compound **SI6**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI6**.

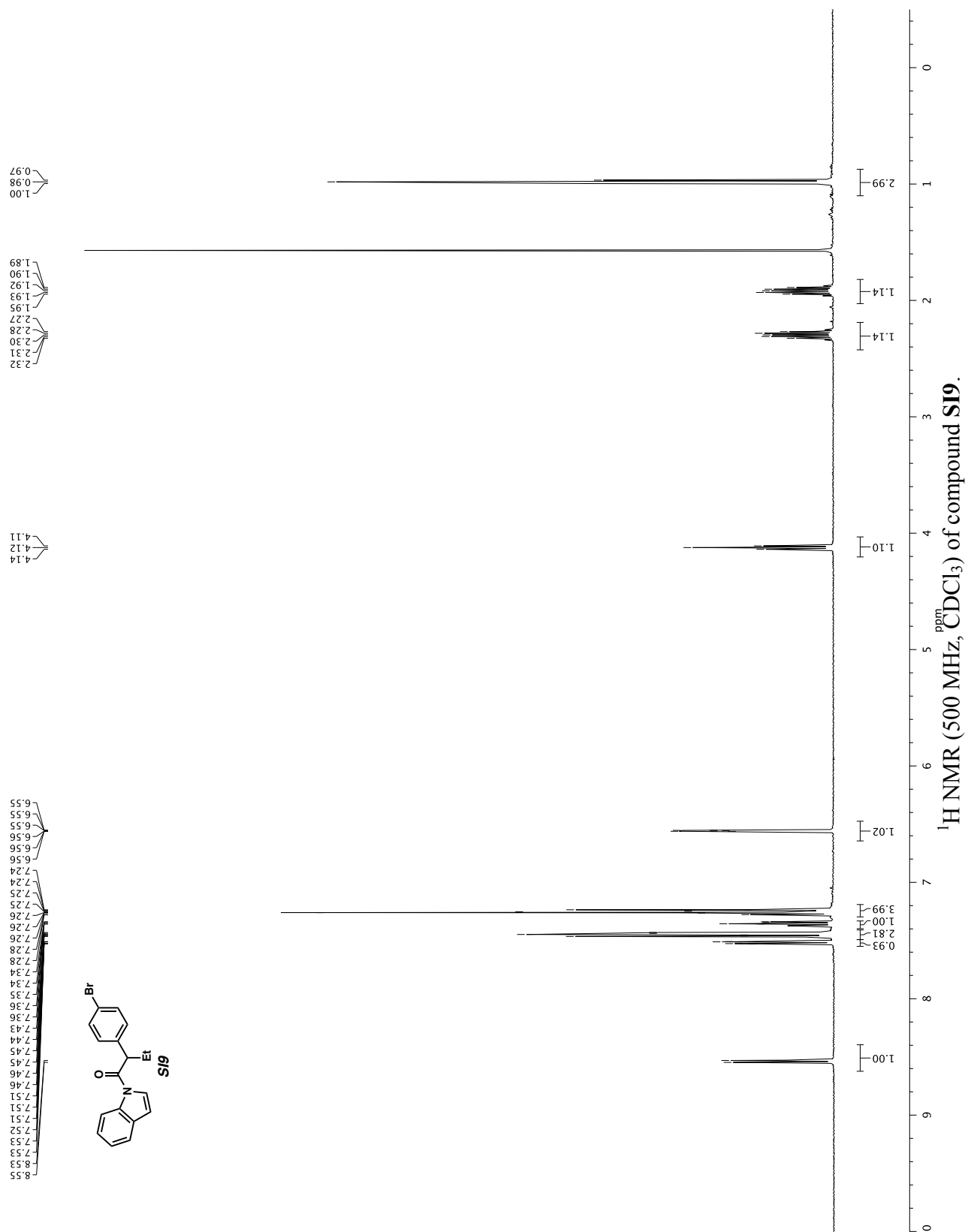


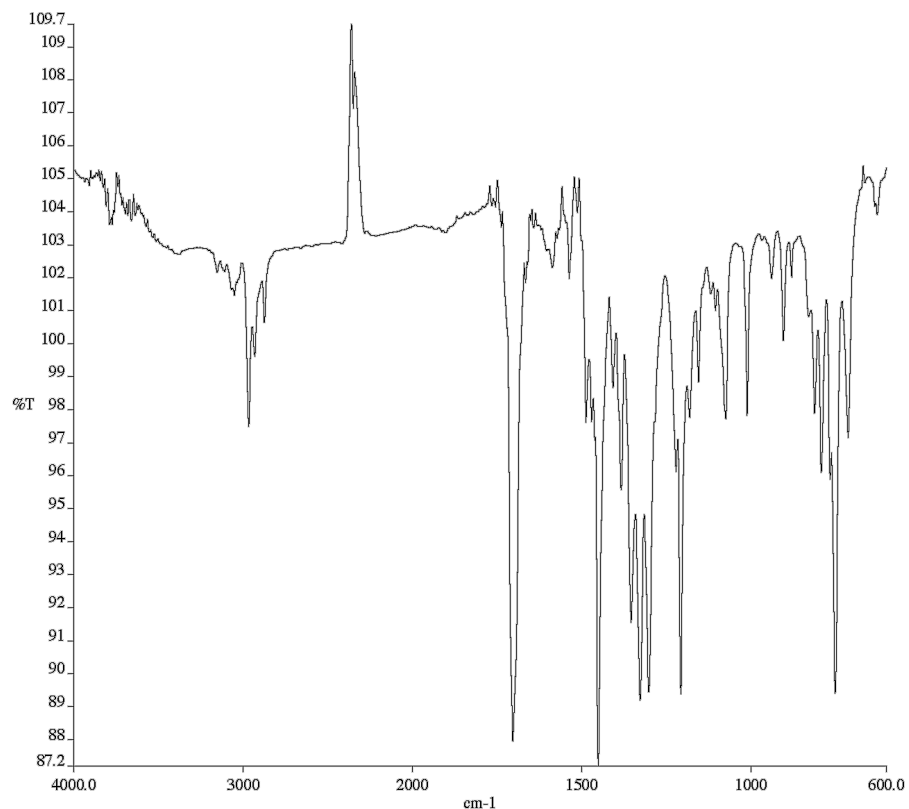
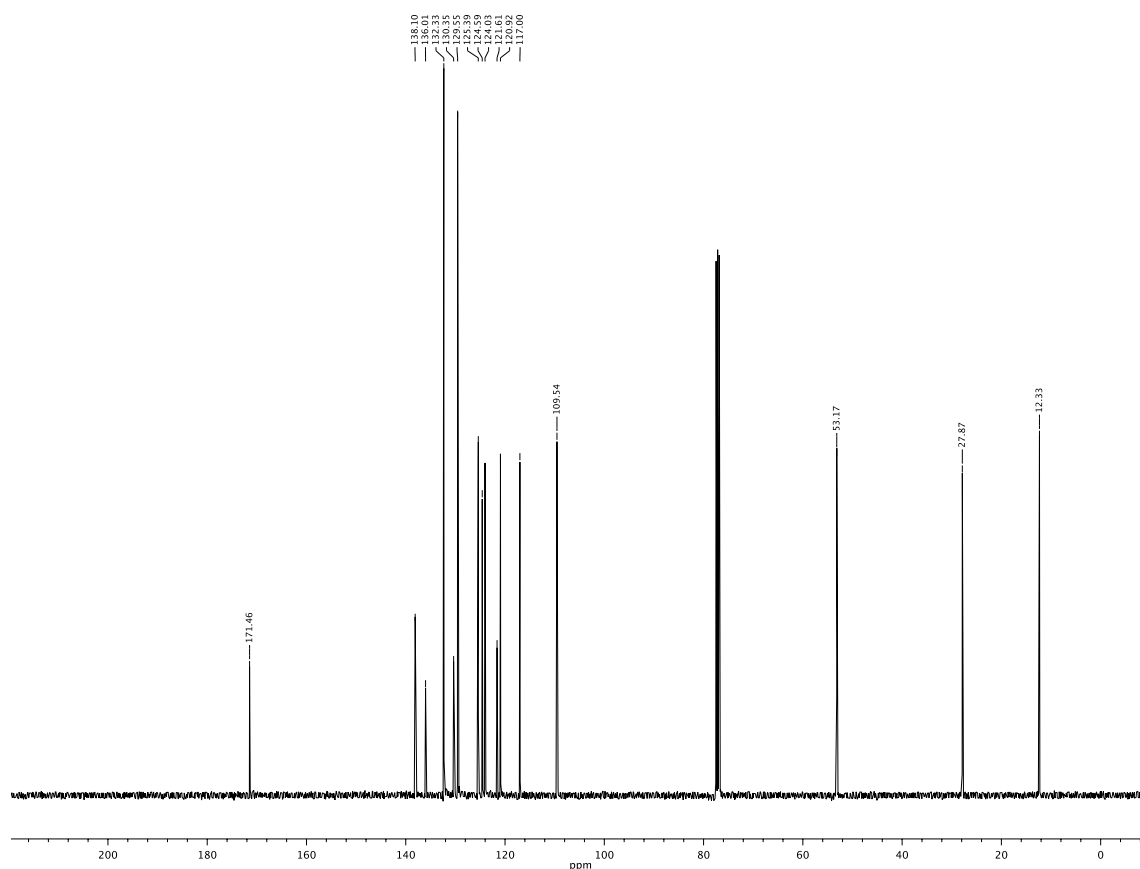
Infrared spectrum (Thin Film, NaCl) of compound **SI7**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI7**.

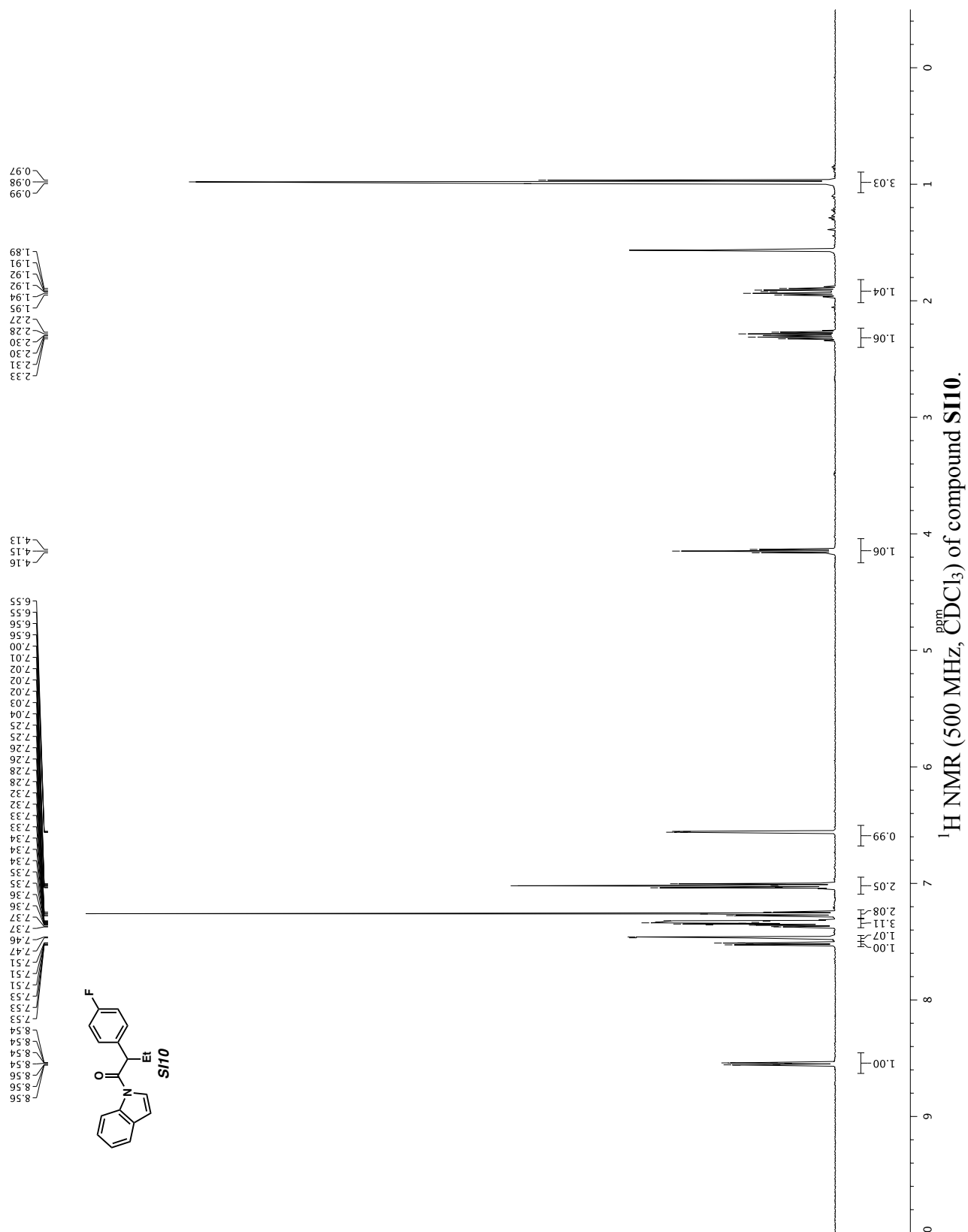


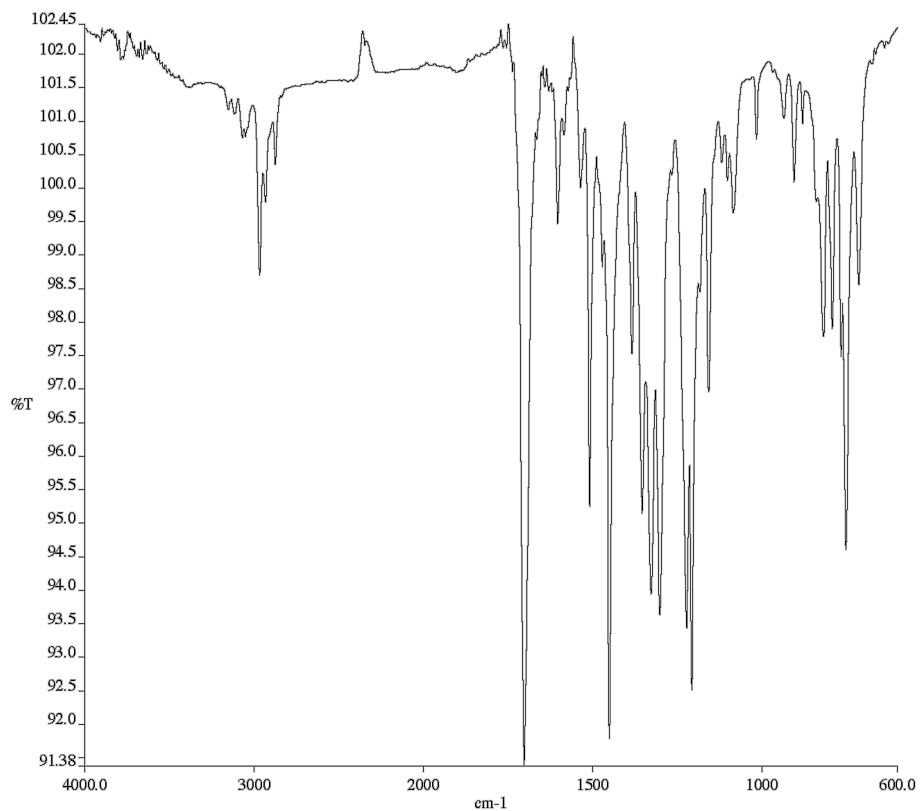
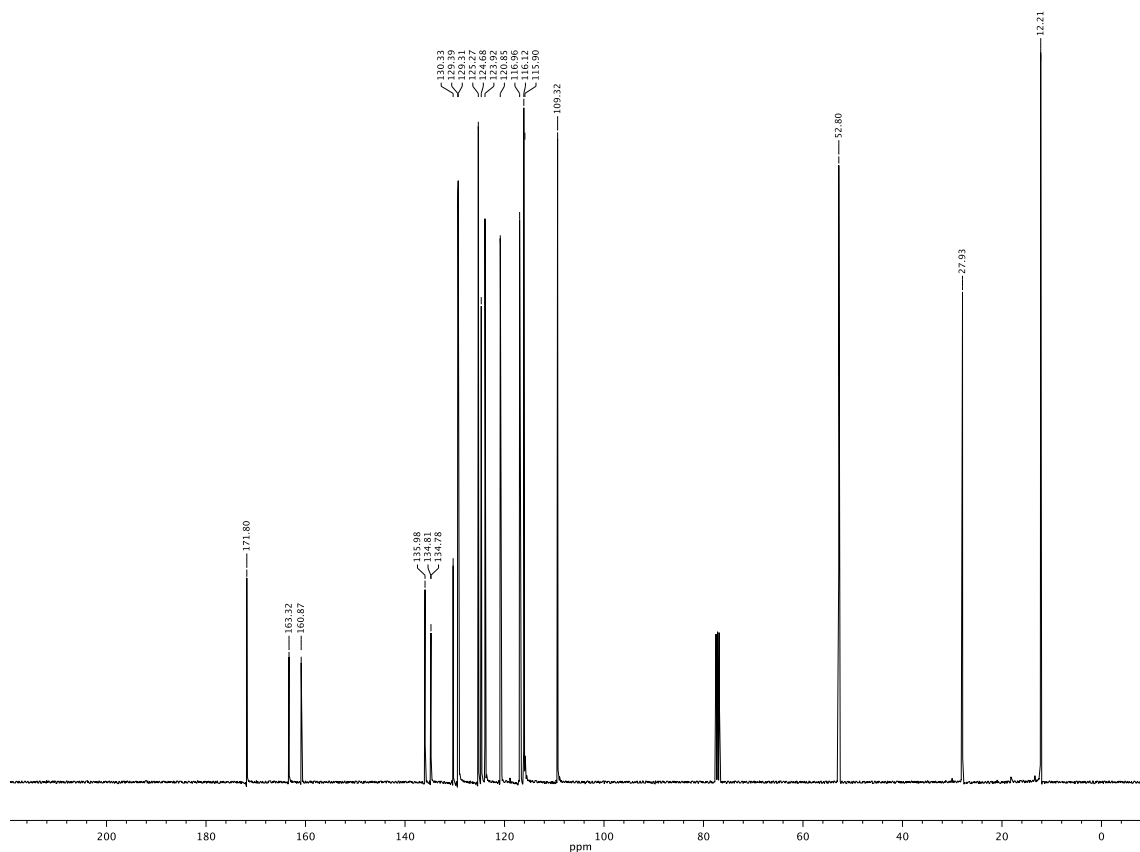
Infrared spectrum (Thin Film, NaCl) of compound **SI8**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI8**.

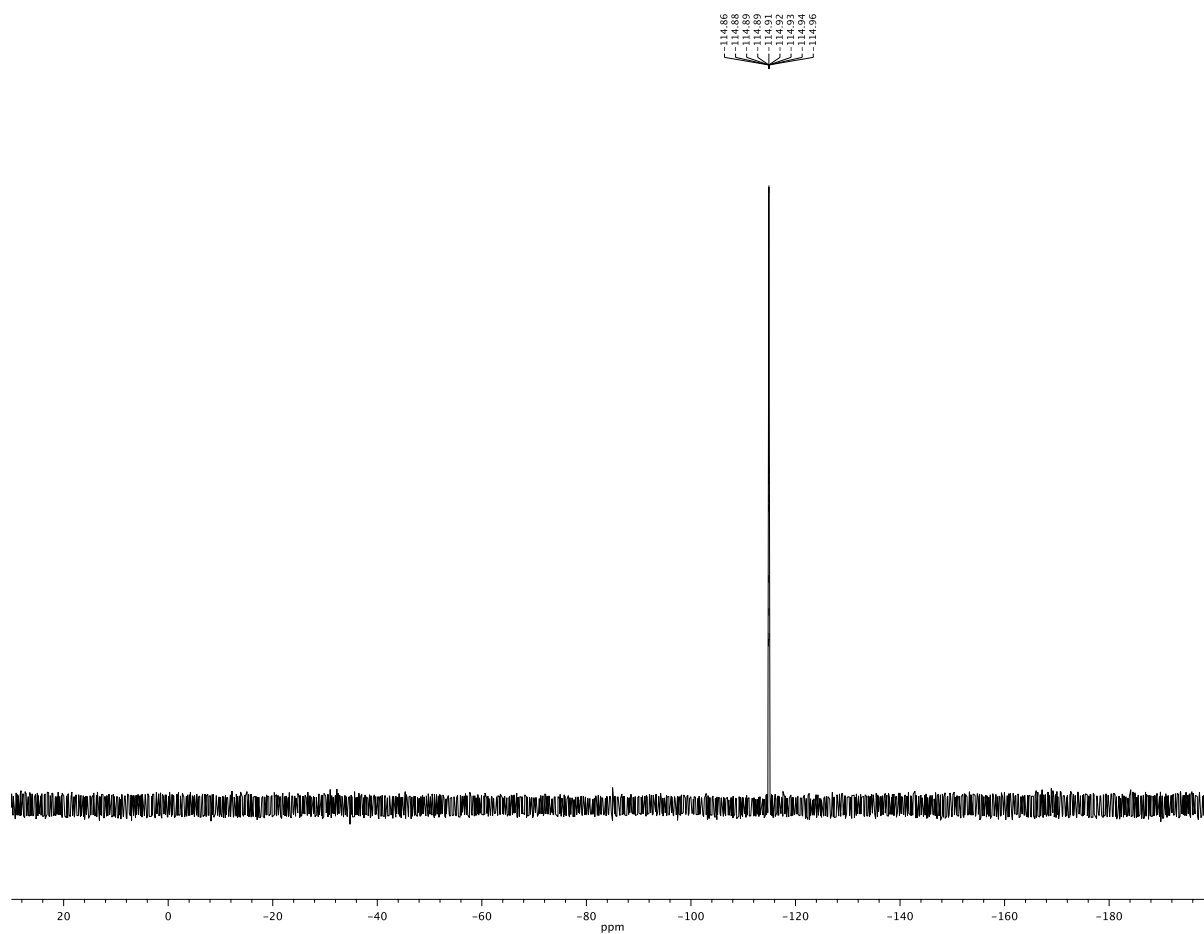




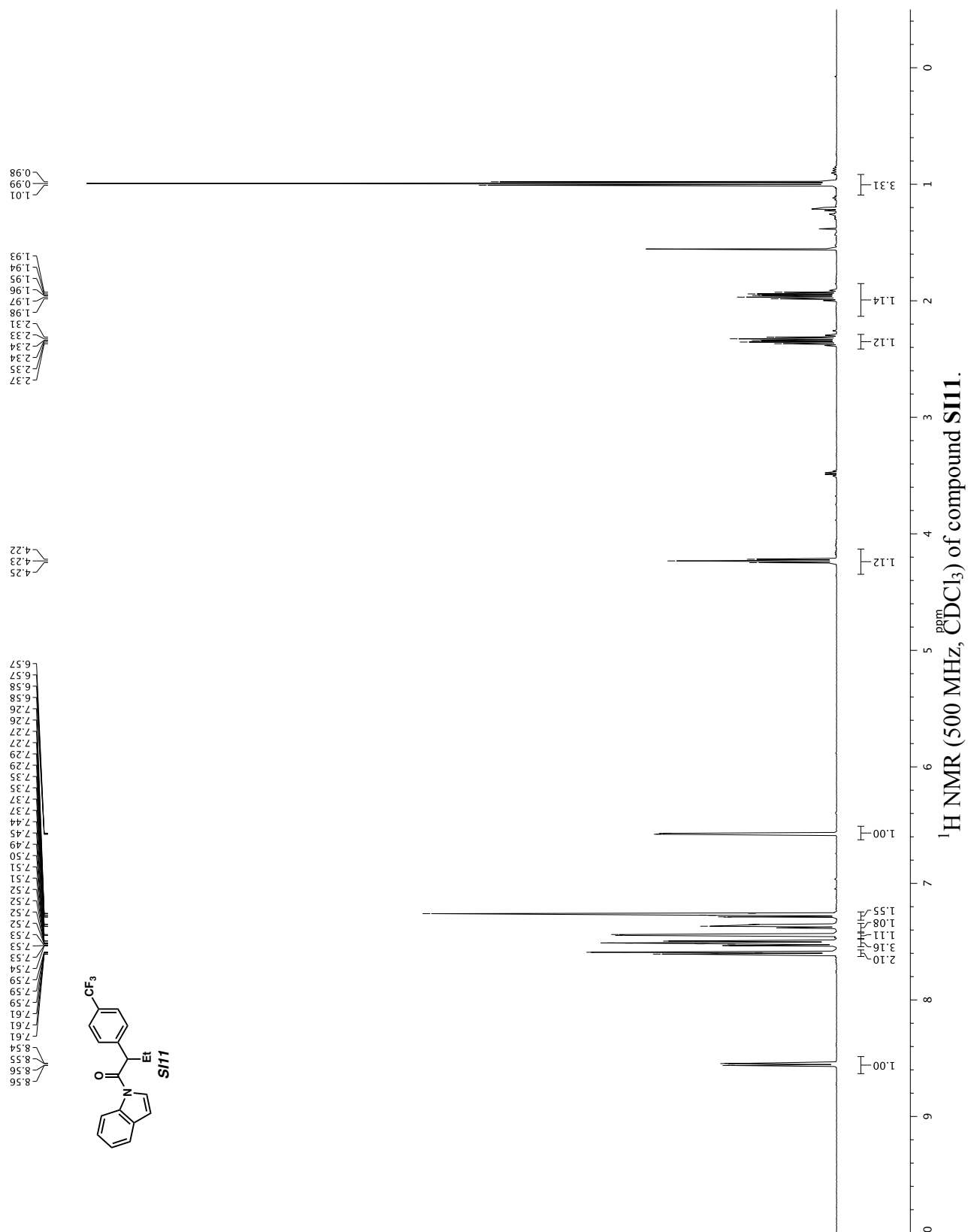
Infrared spectrum (Thin Film, NaCl) of compound **SI9**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI9**.

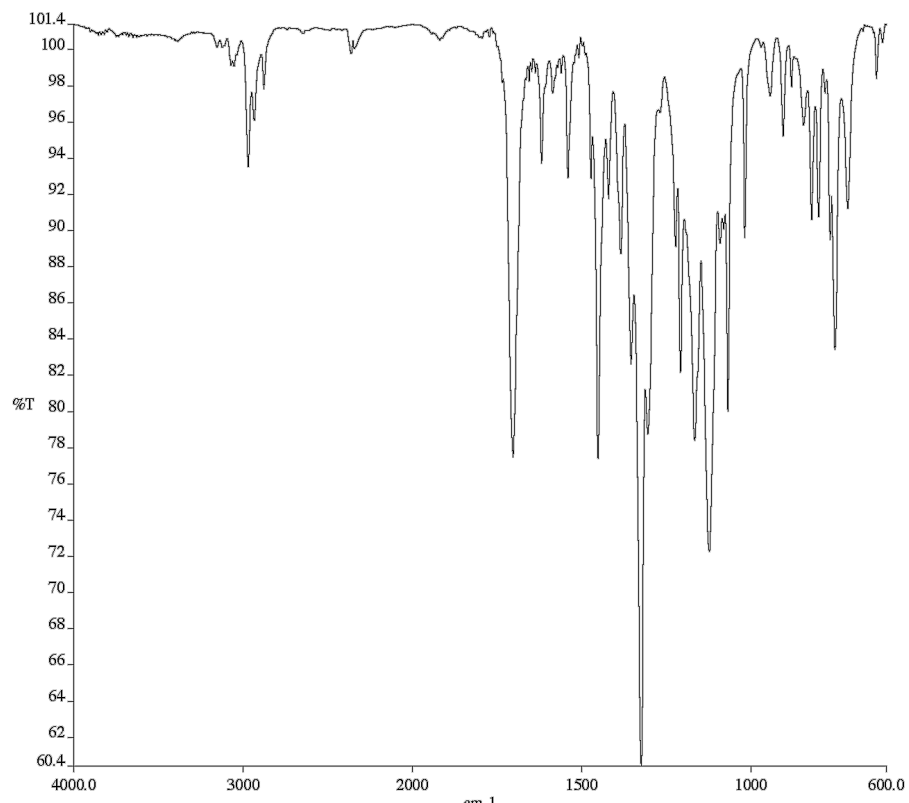


Infrared spectrum (Thin Film, NaCl) of compound **SI10**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI10**.

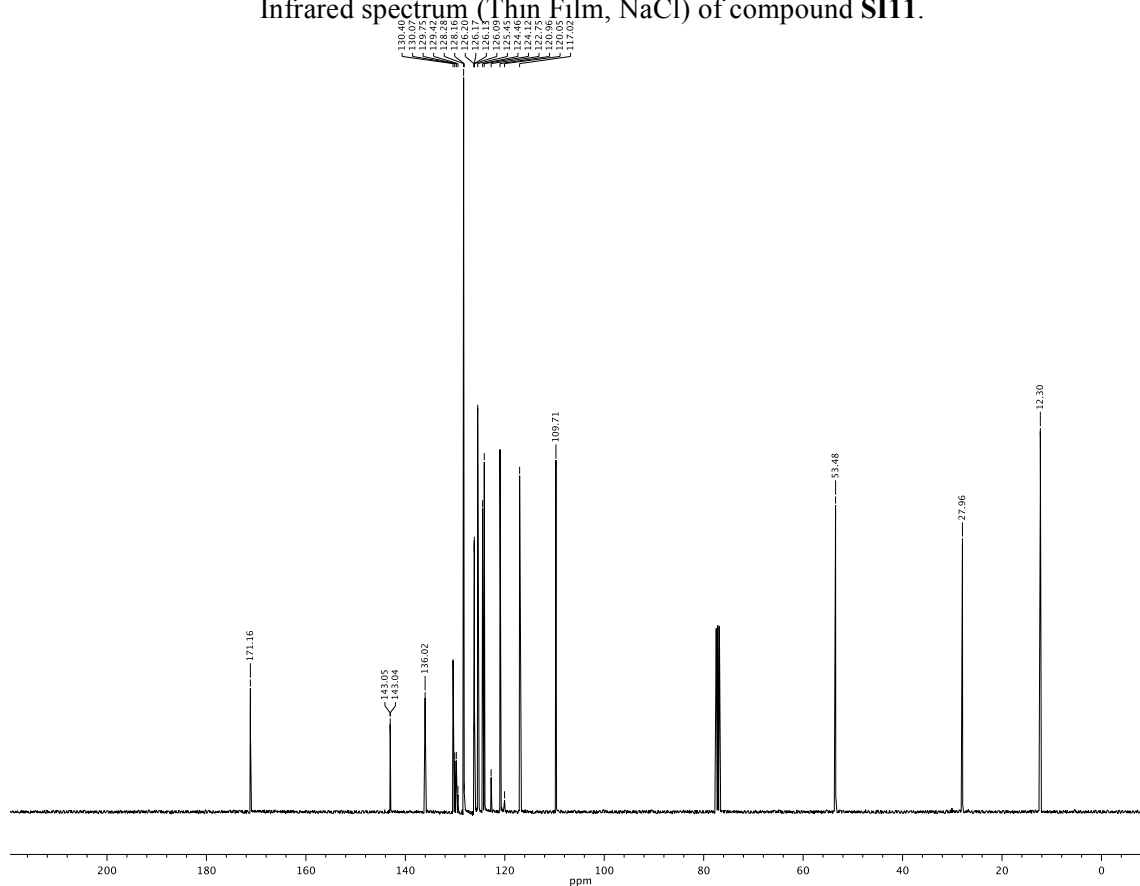


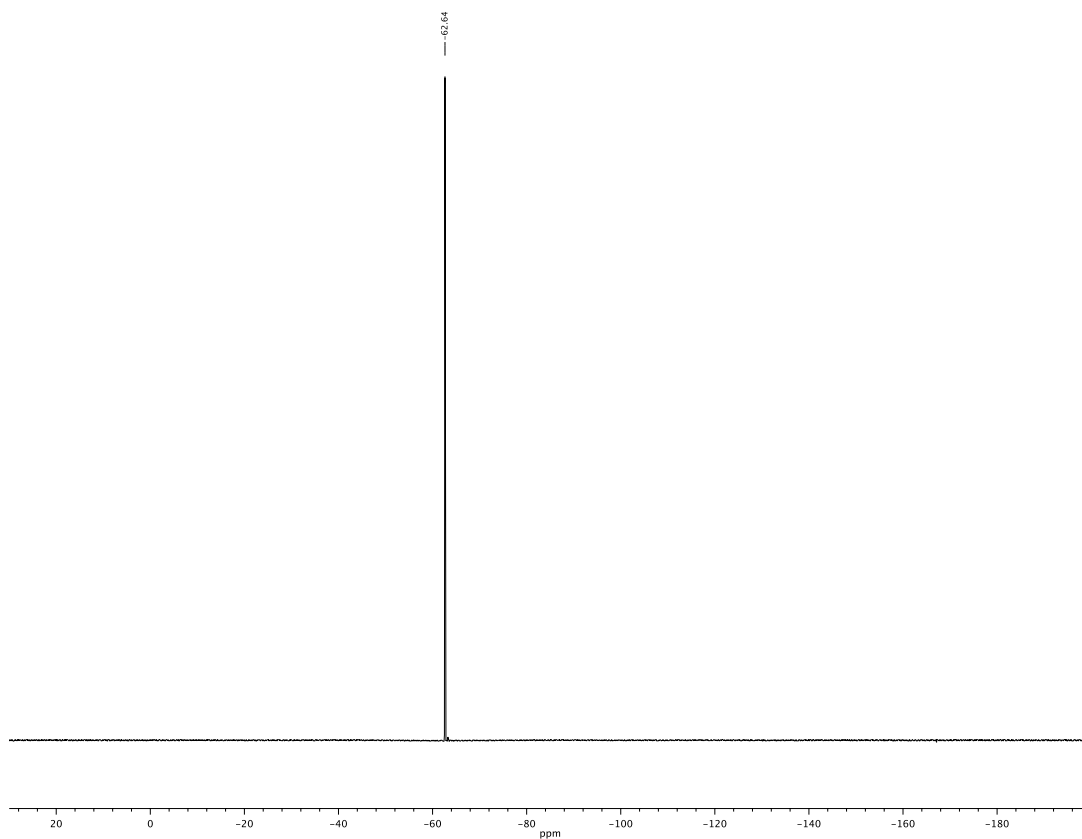
$^{19}\text{F}$  NMR (282 MHz,  $\text{CDCl}_3$ ) of compound **SI10**.





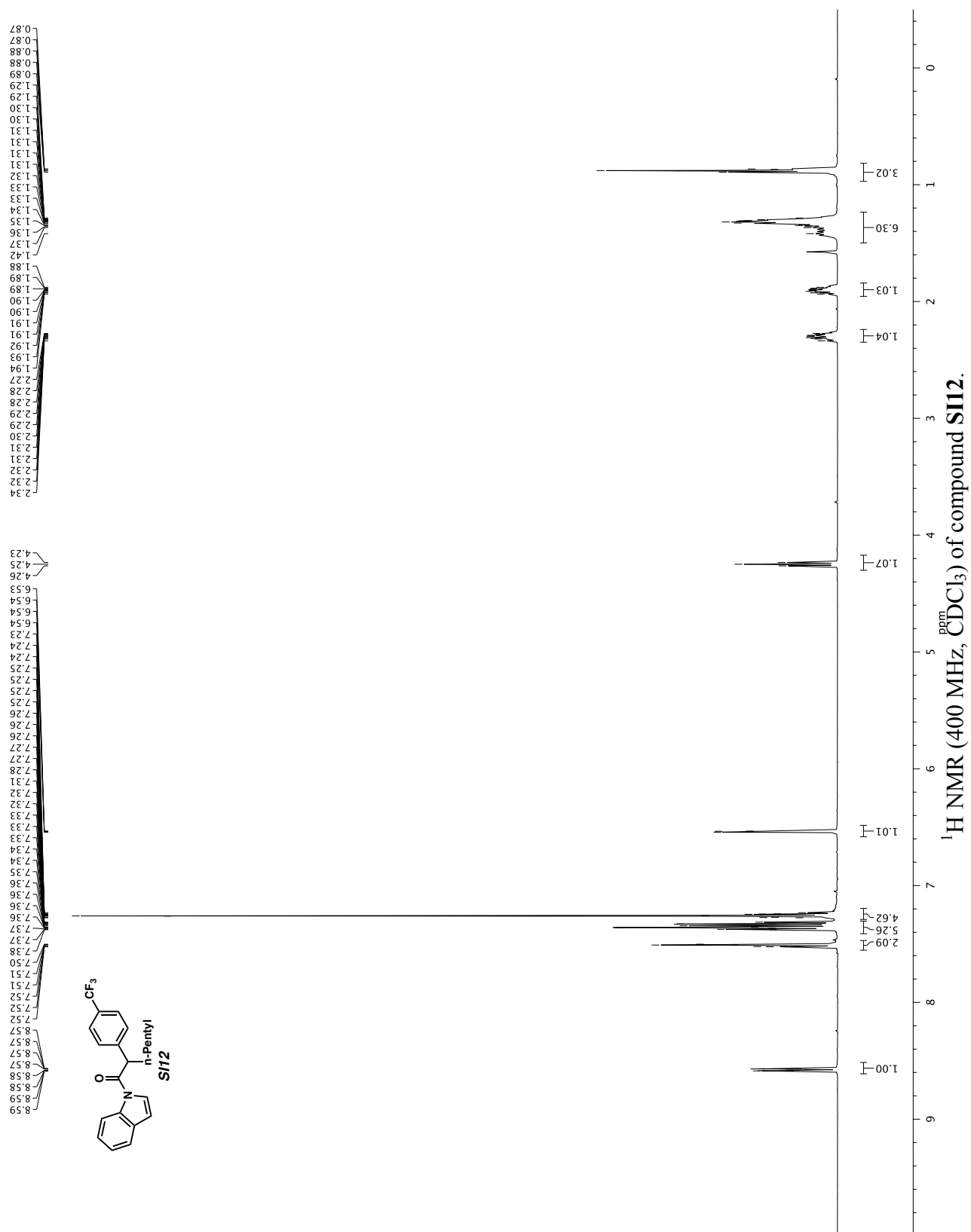
Infrared spectrum (Thin Film, NaCl) of compound SI11.

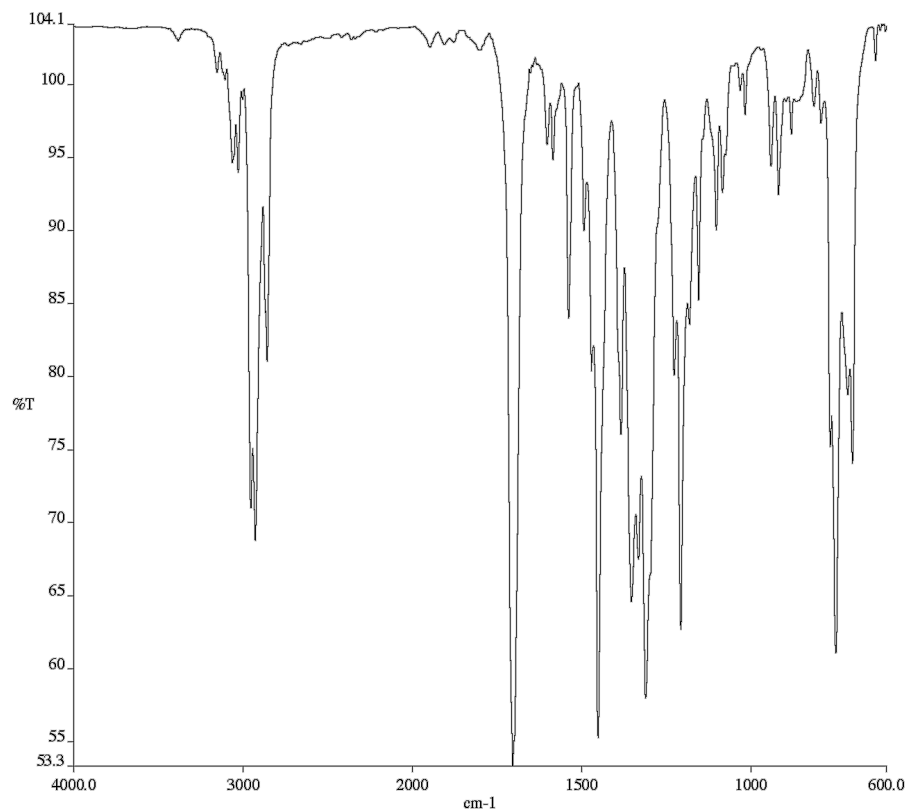
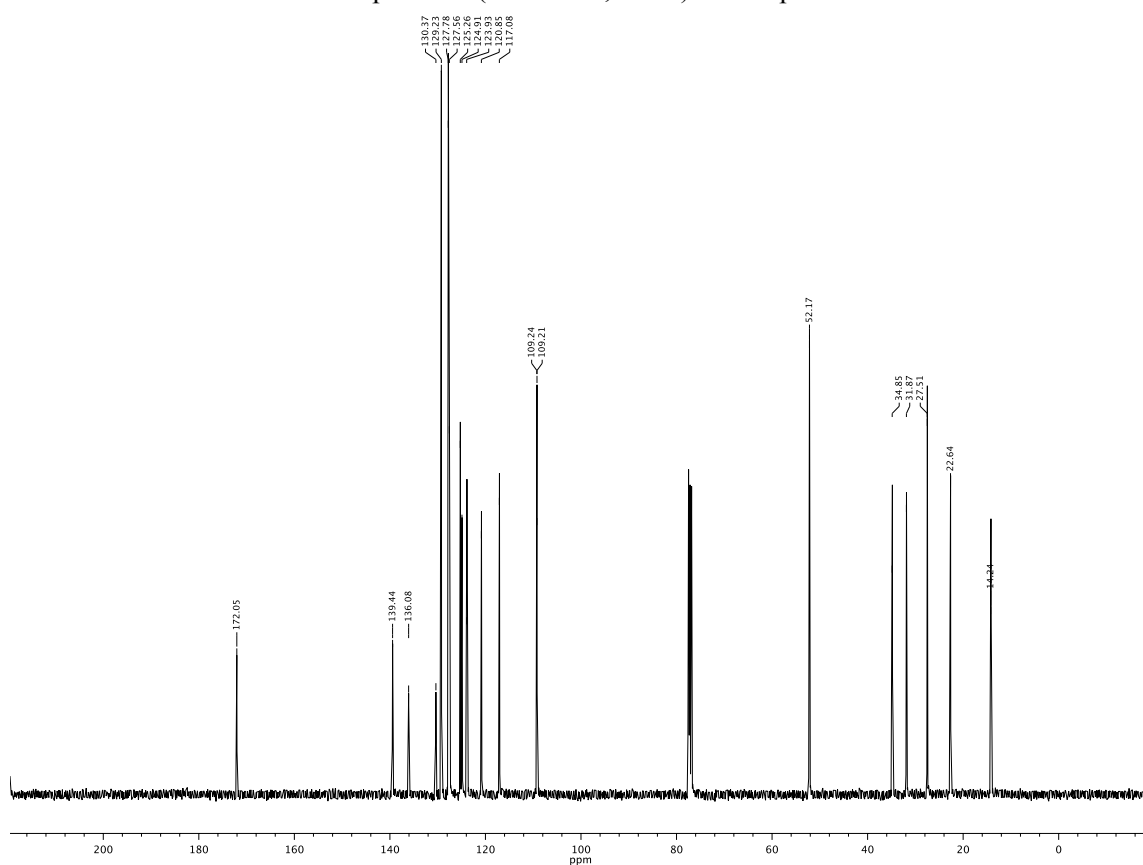
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound SI11.

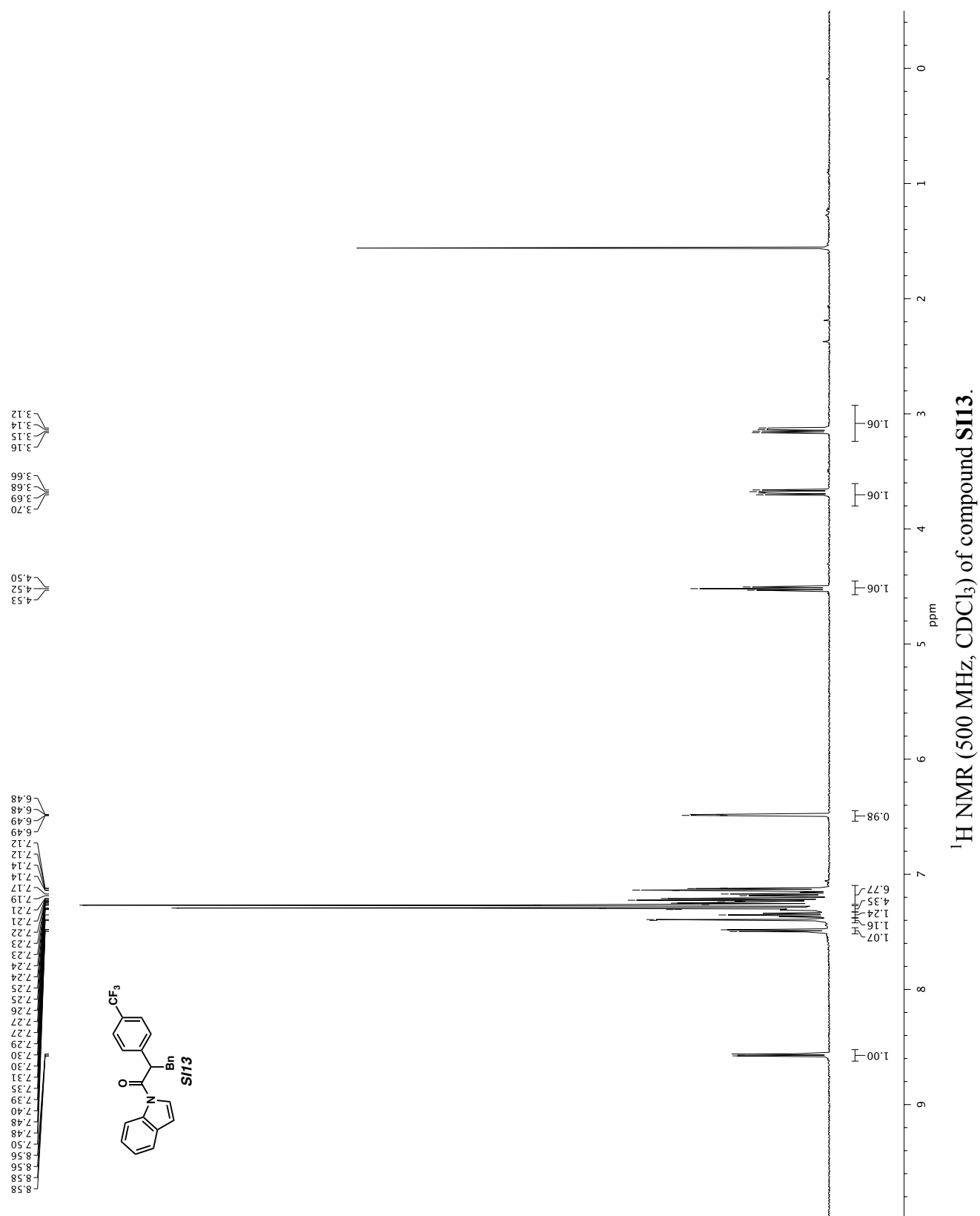


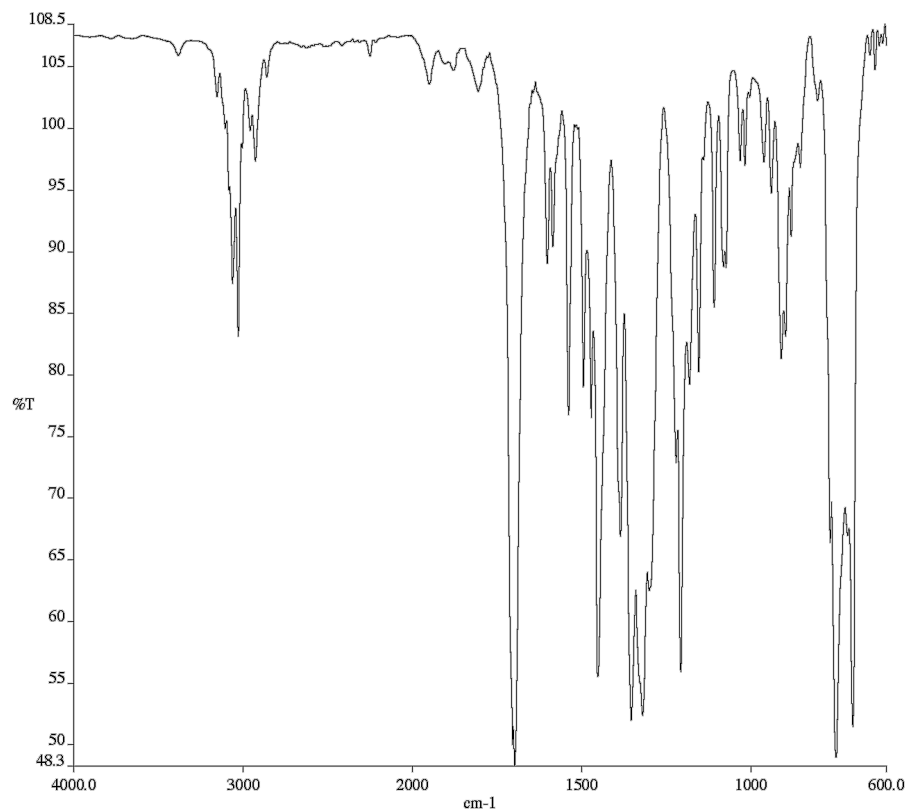
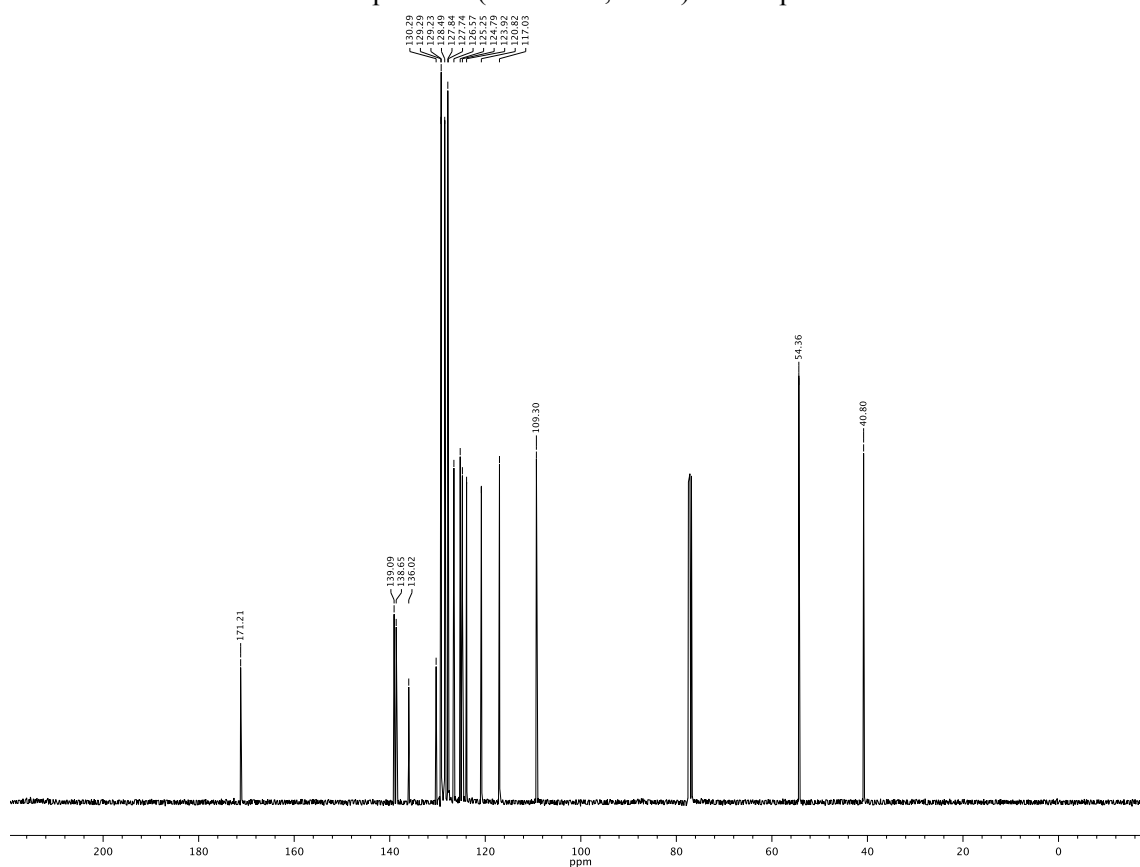
$^{19}\text{F}$  NMR (282 MHz,  $\text{CDCl}_3$ ) of compound **SI11**.

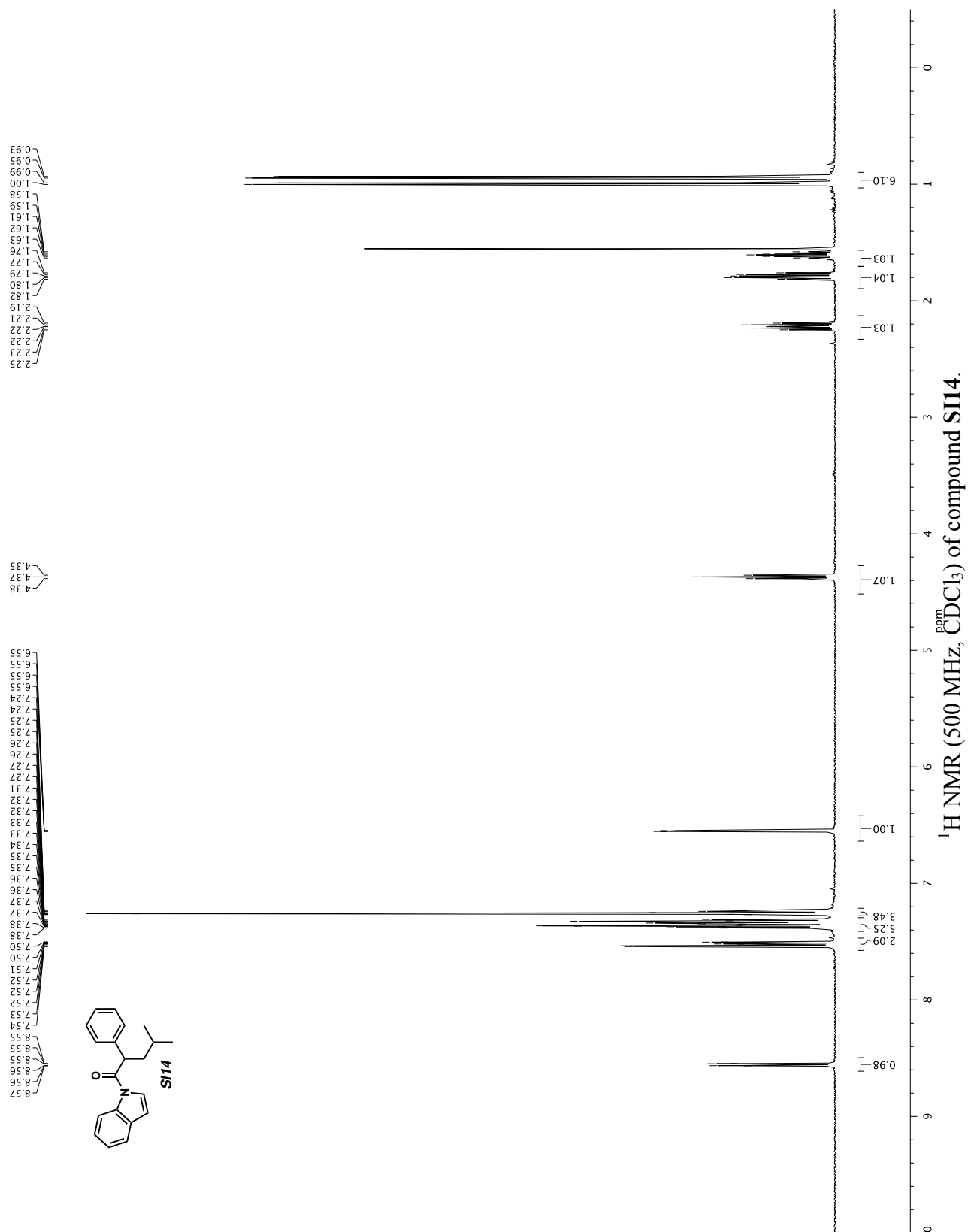


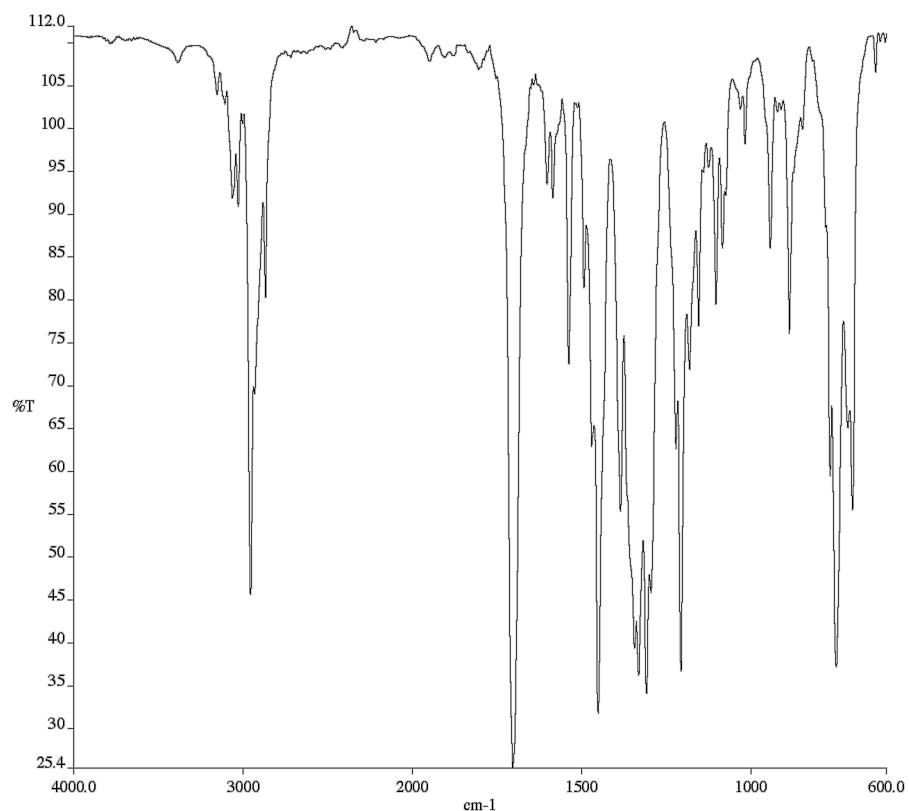
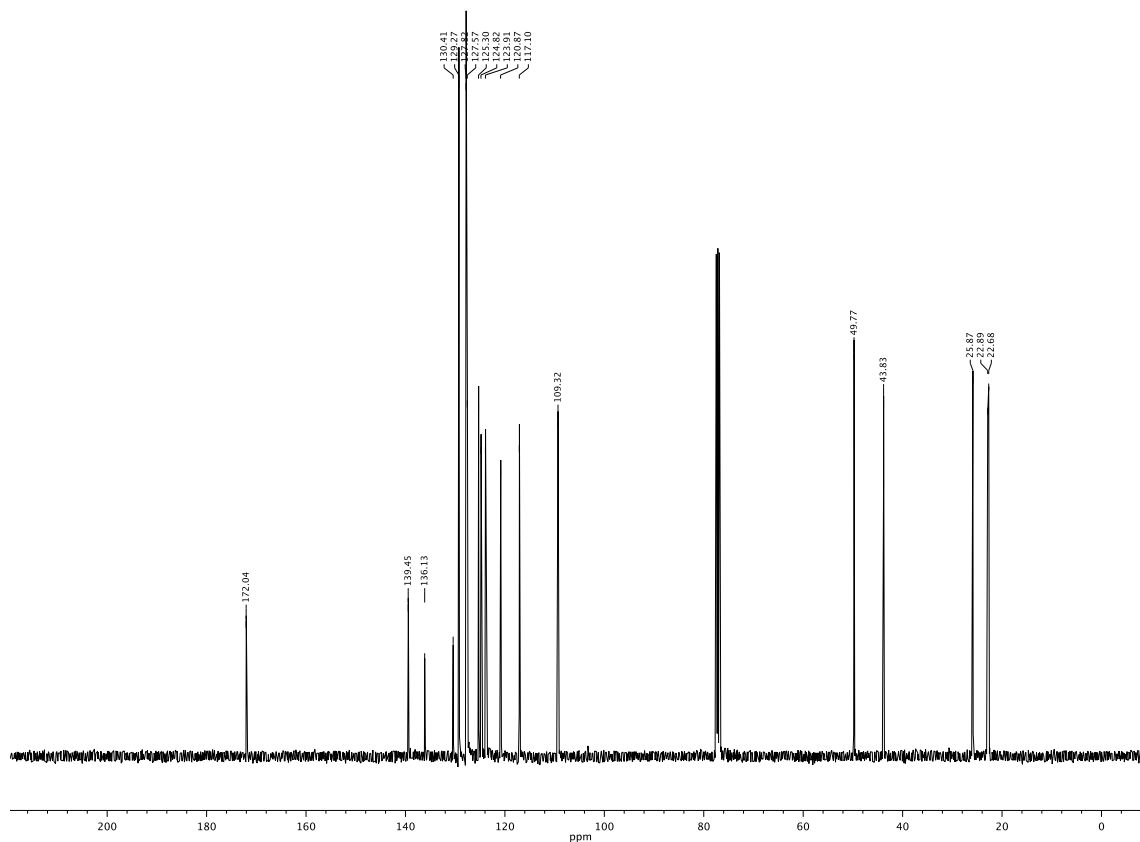


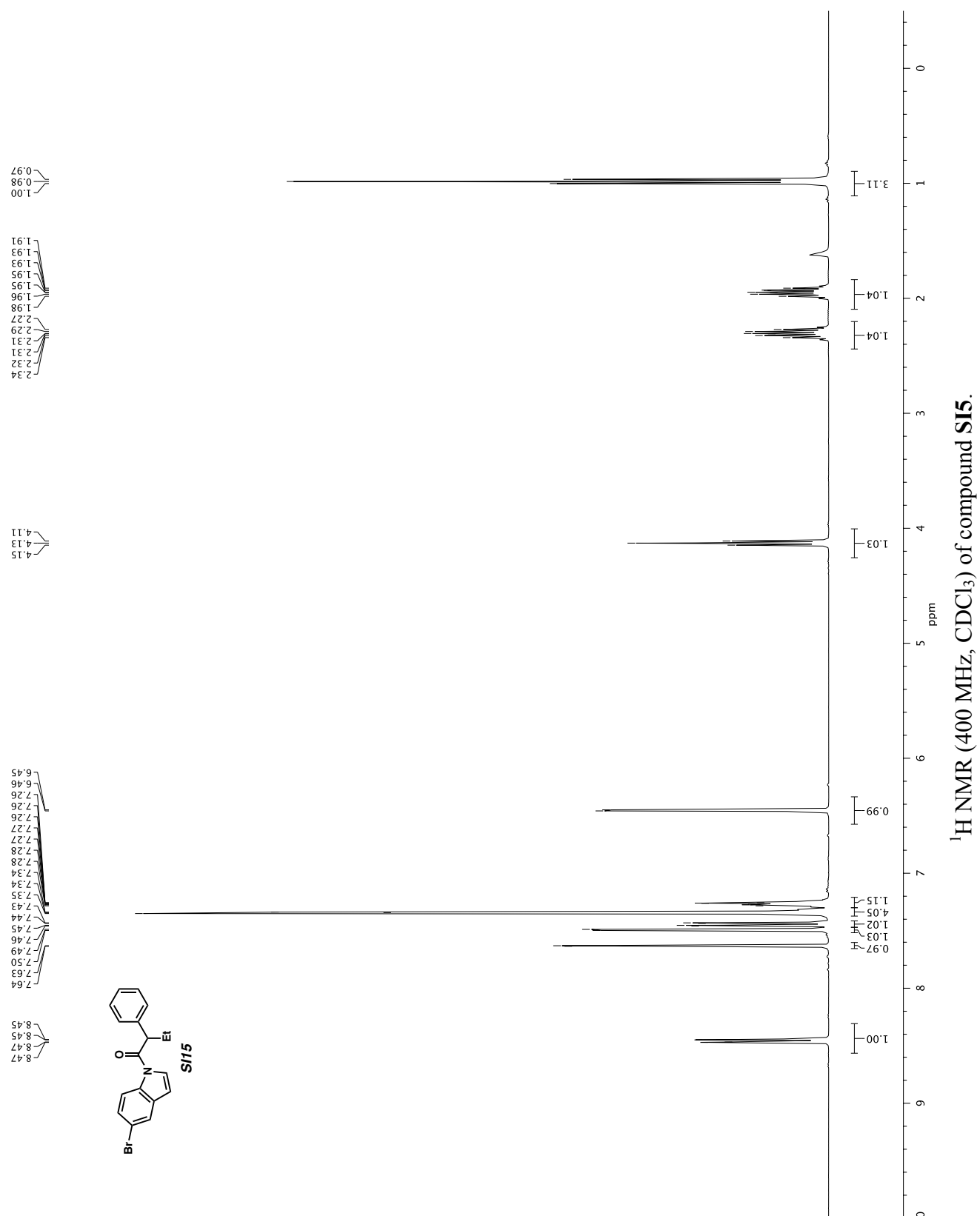
Infrared spectrum (Thin Film, NaCl) of compound **SI12**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI12**.

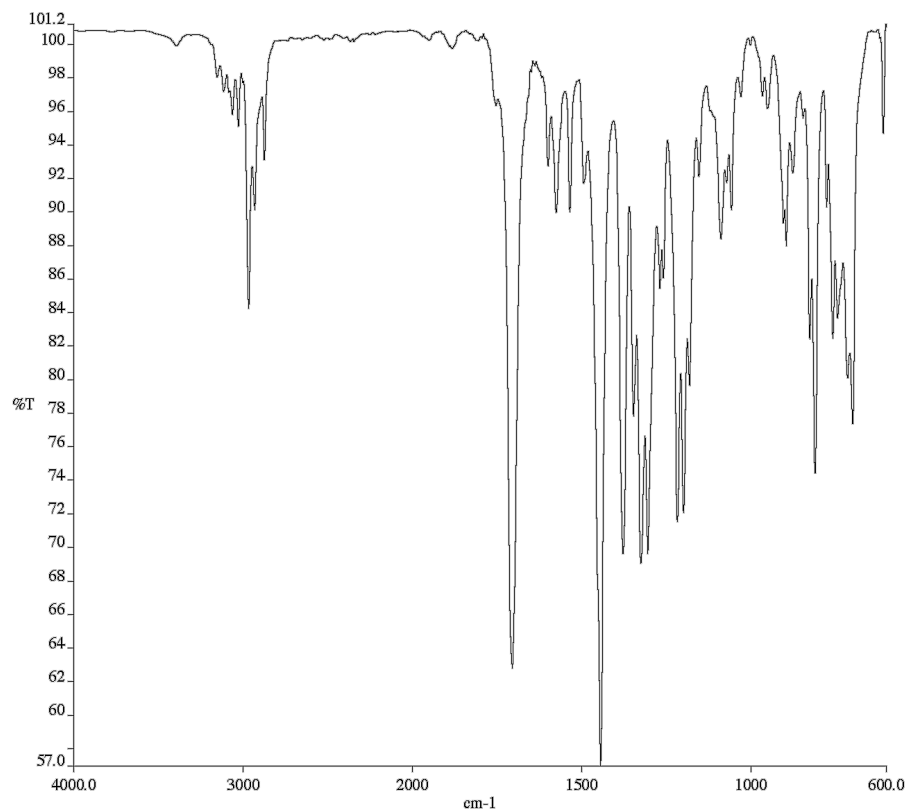
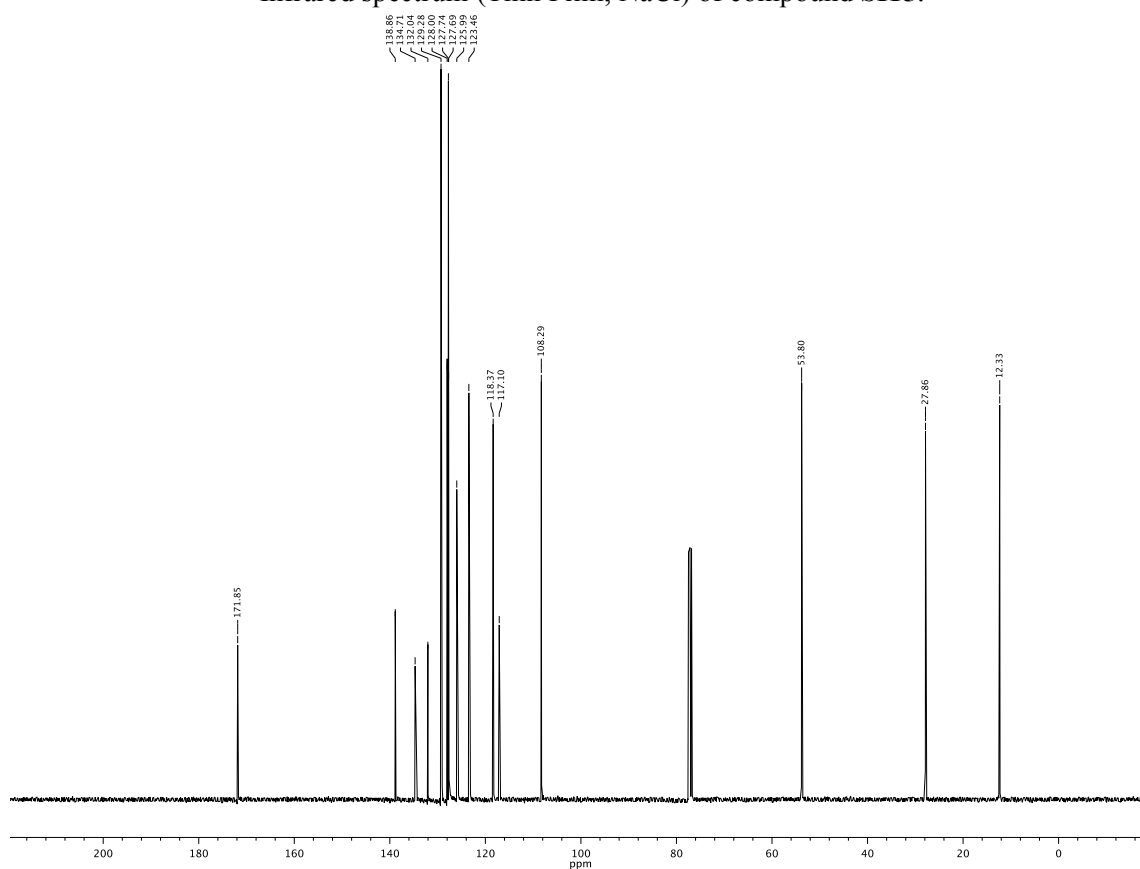


Infrared spectrum (Thin Film, NaCl) of compound **SI13**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI13**.

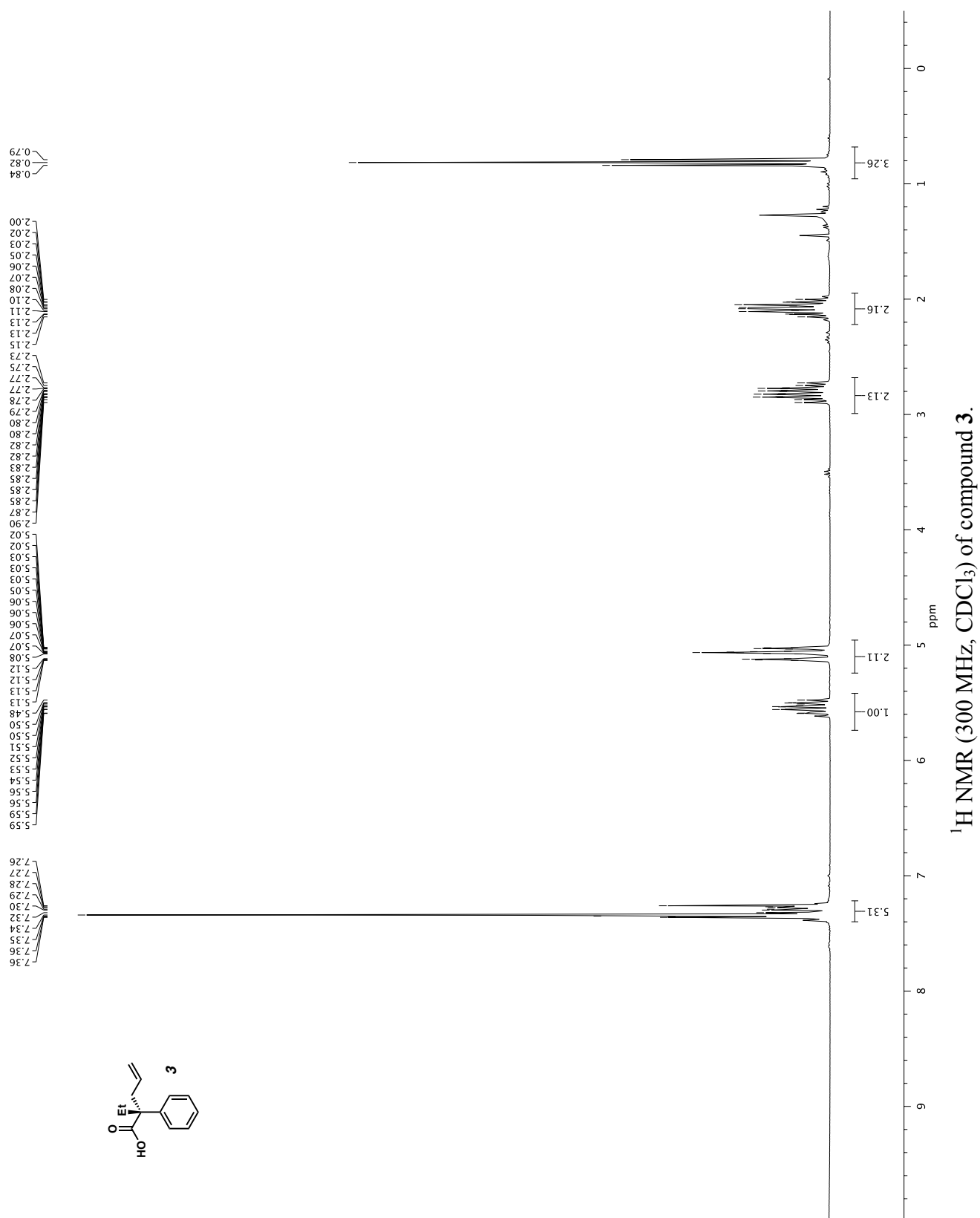


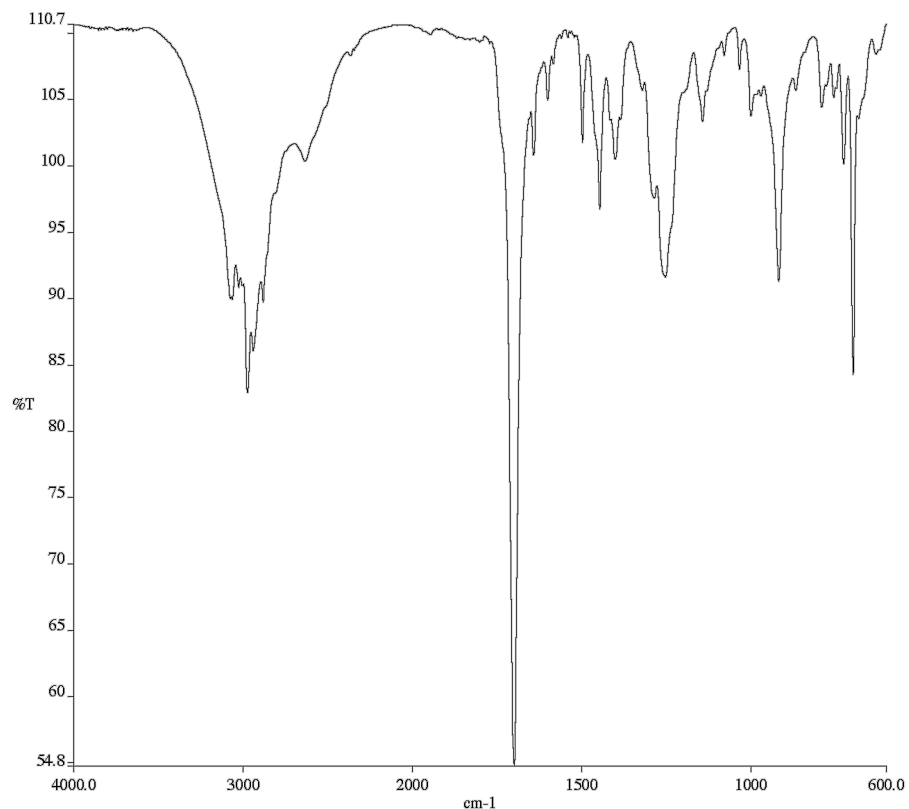
Infrared spectrum (Thin Film, NaCl) of compound **SI14**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI14**.



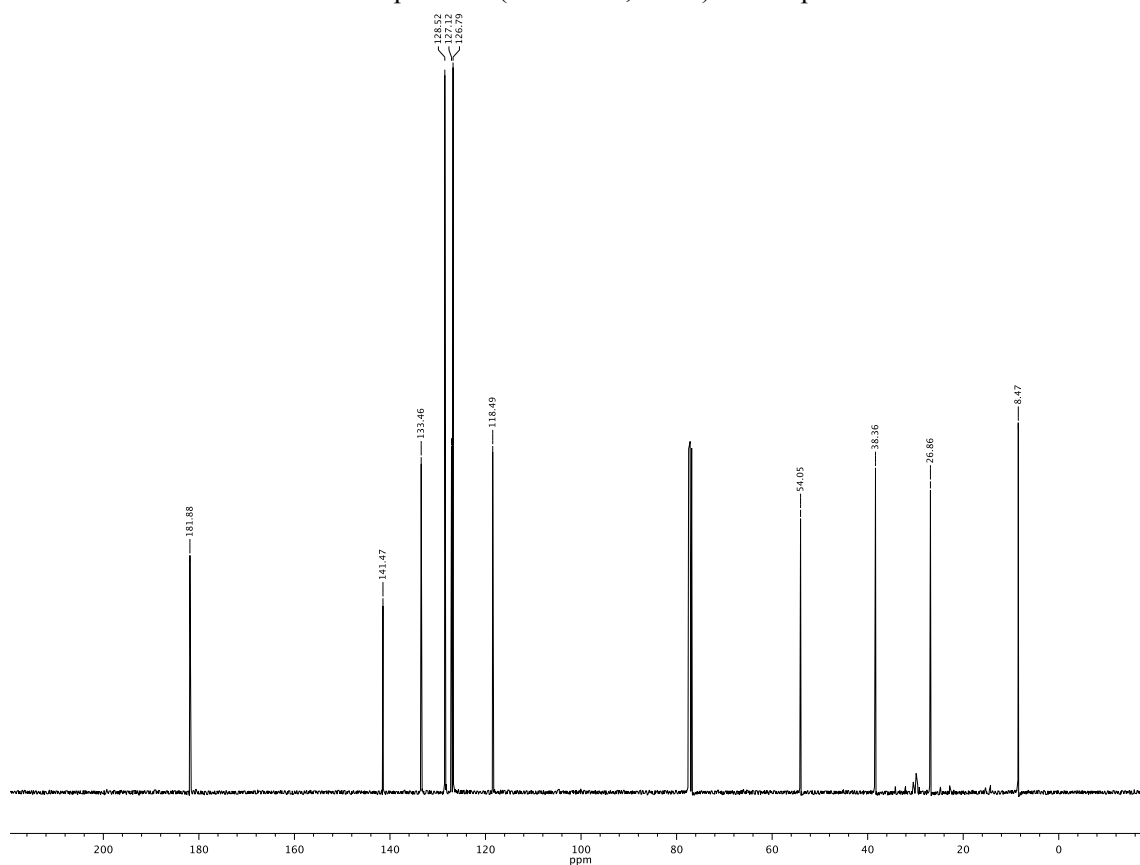
Infrared spectrum (Thin Film, NaCl) of compound **SI15**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI15**.

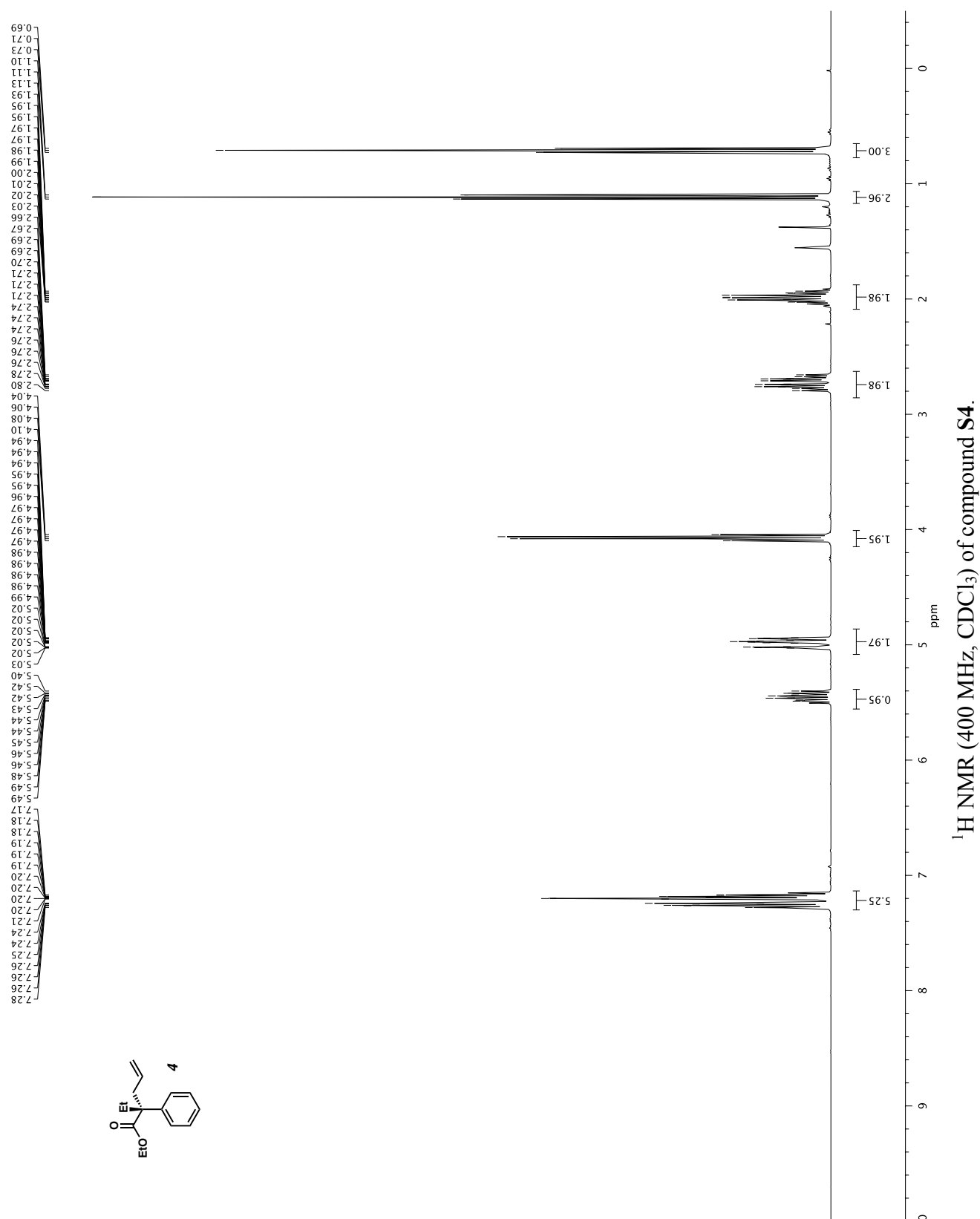


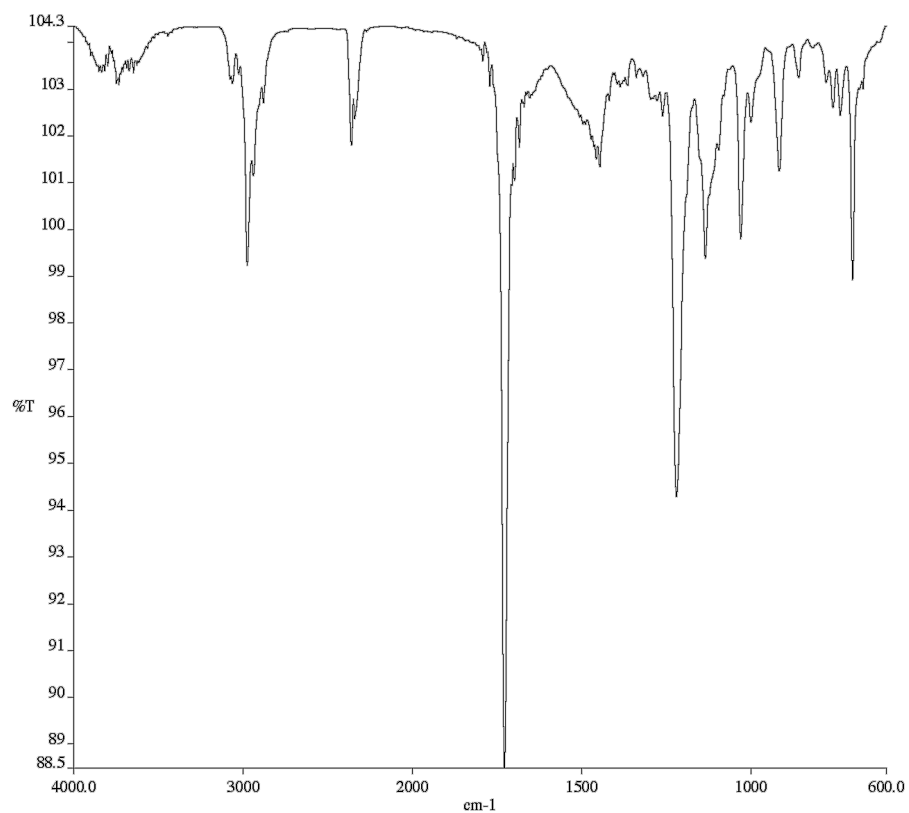




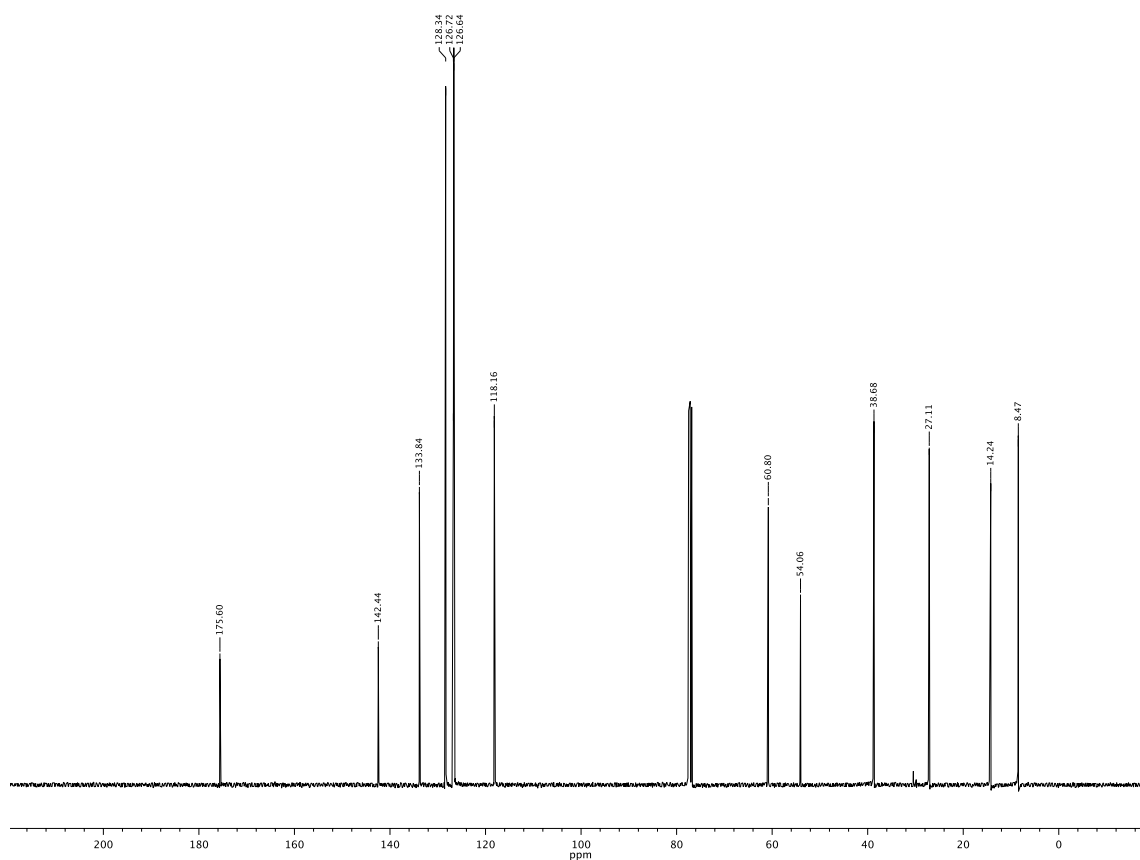
Infrared spectrum (Thin Film, NaCl) of compound 3.

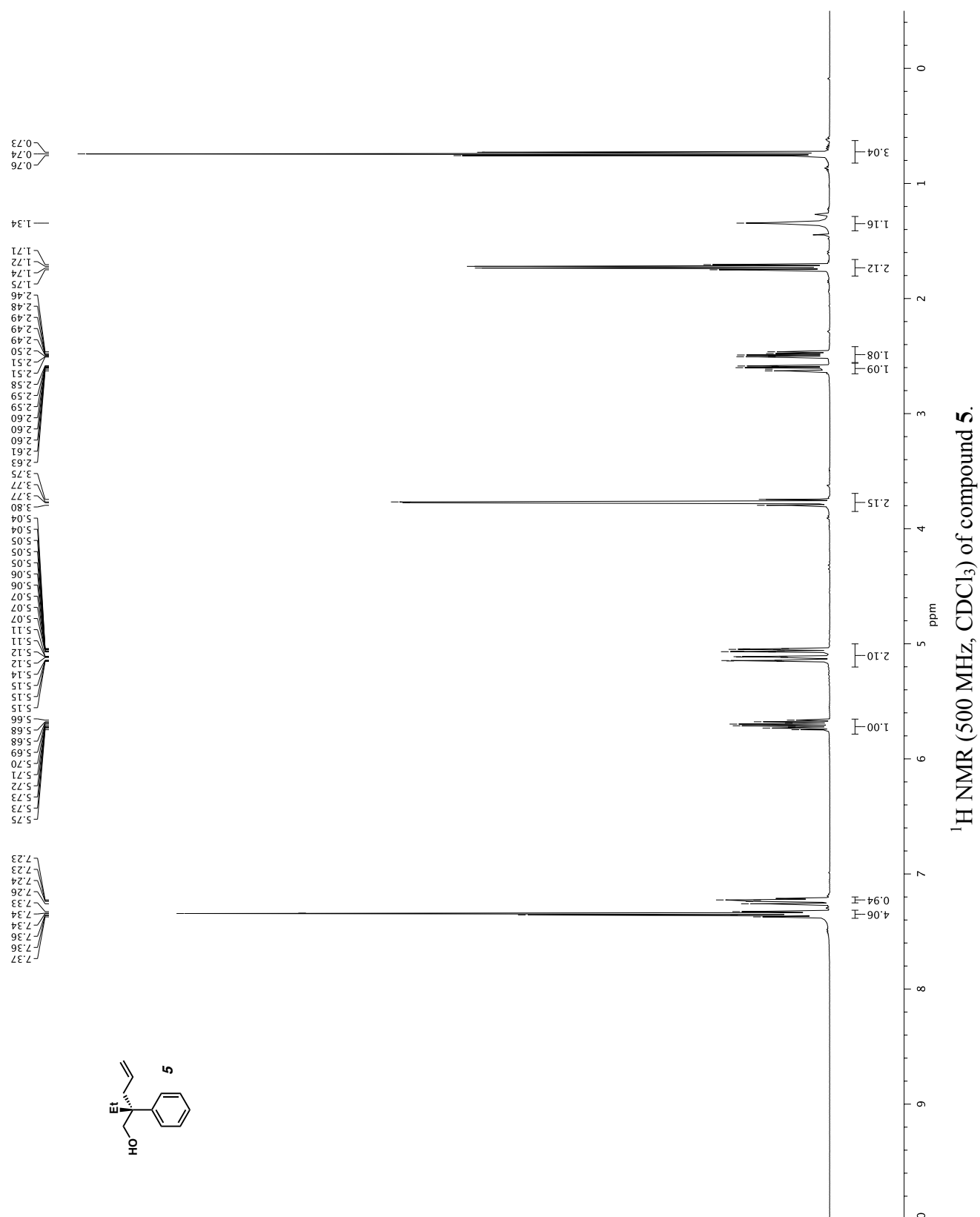
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 3.

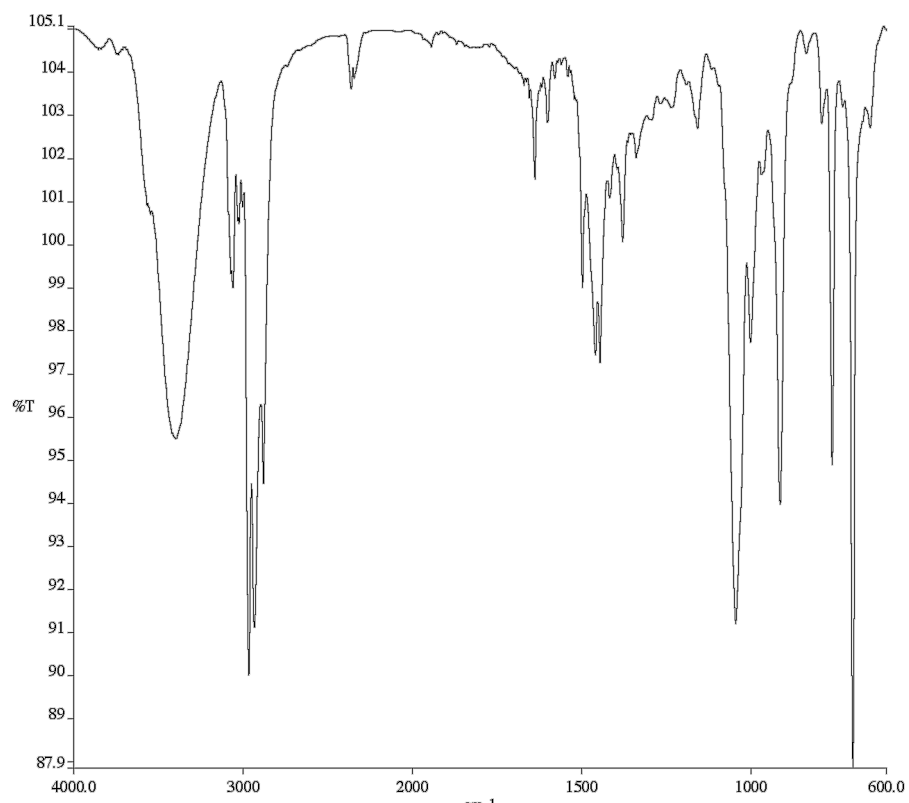




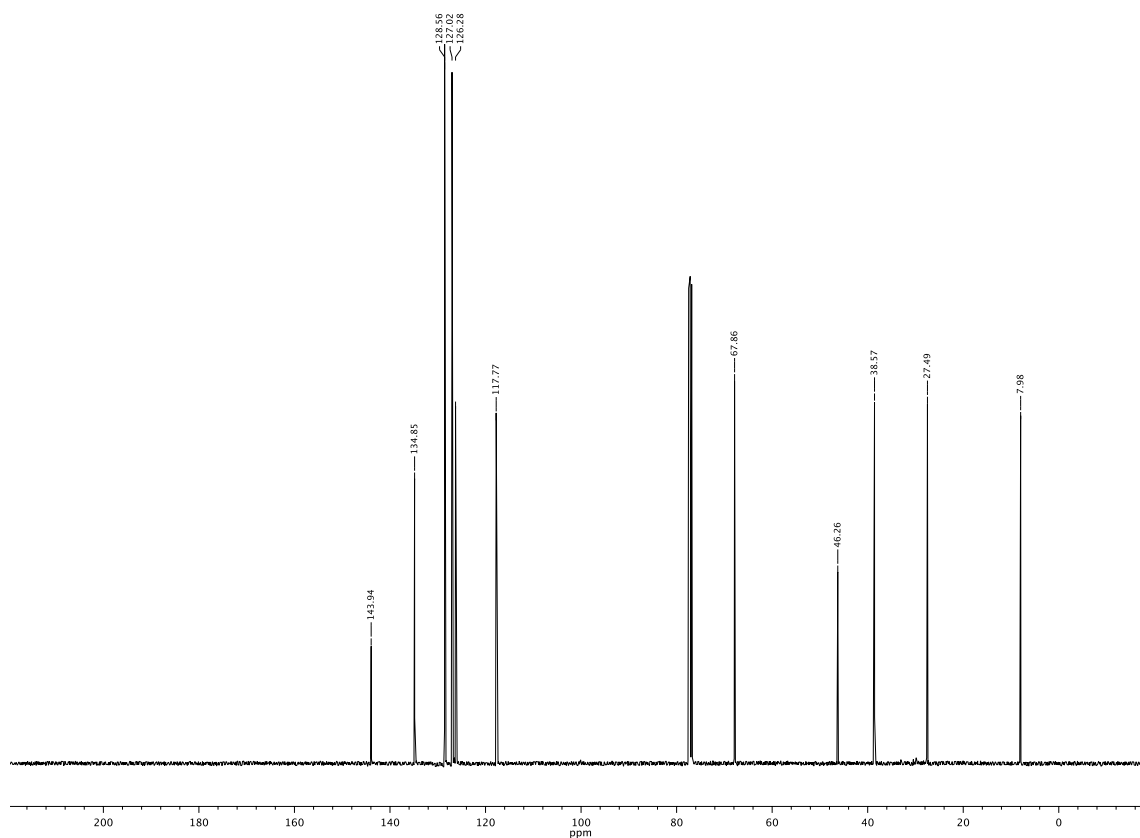
Infrared spectrum (Thin Film, NaCl) of compound 4.

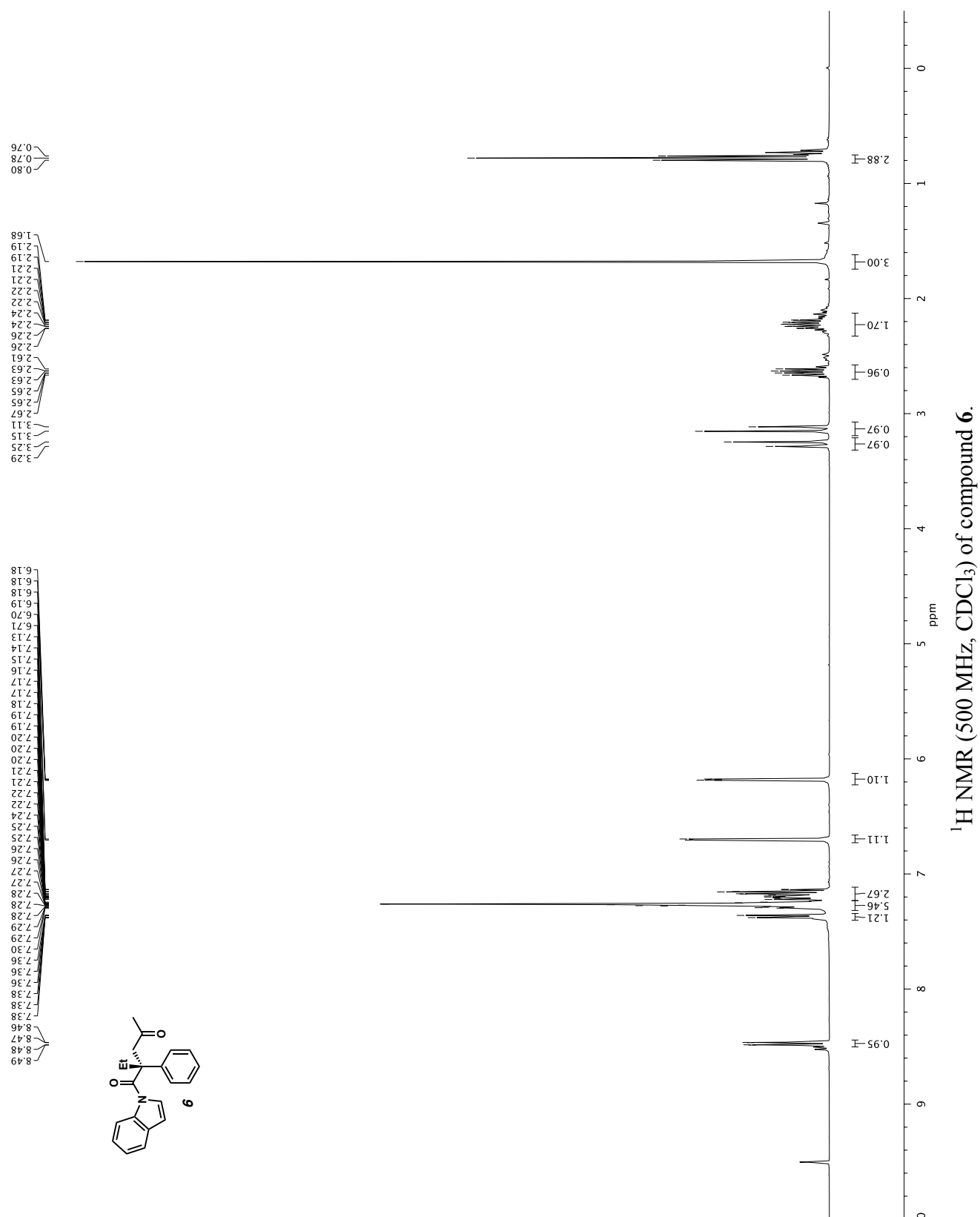
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 4.

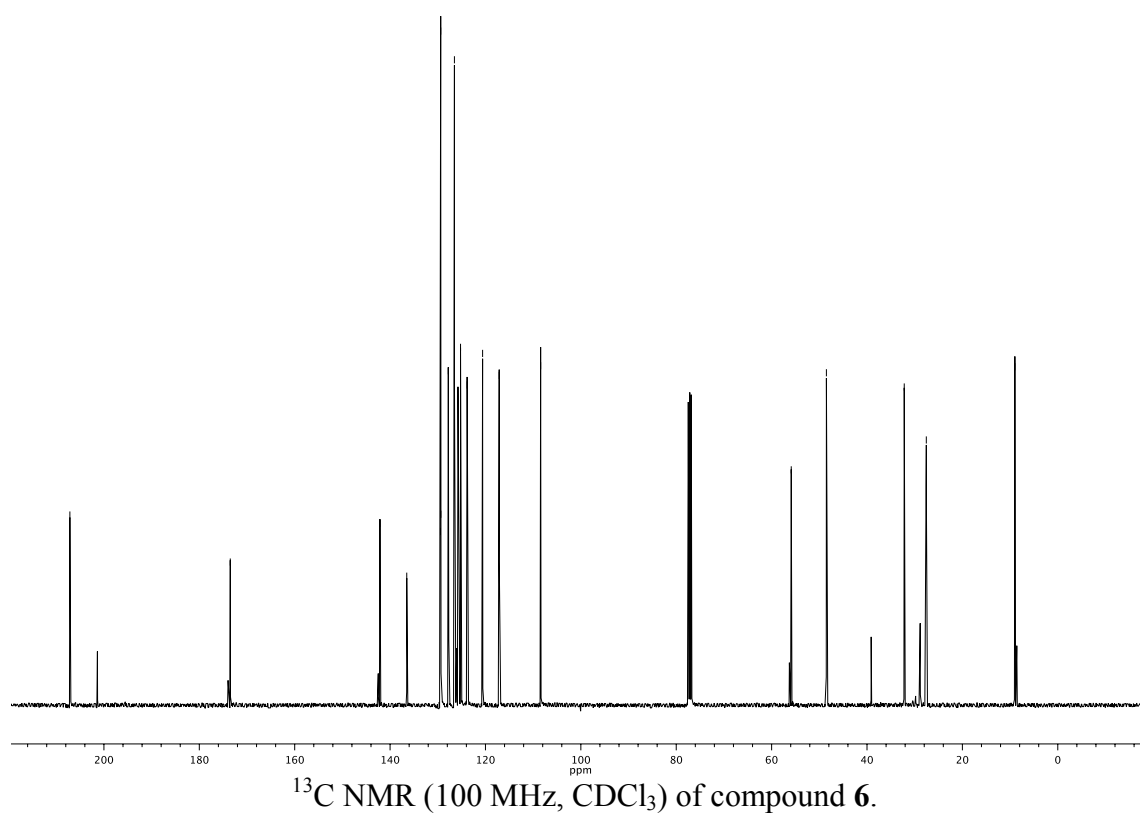
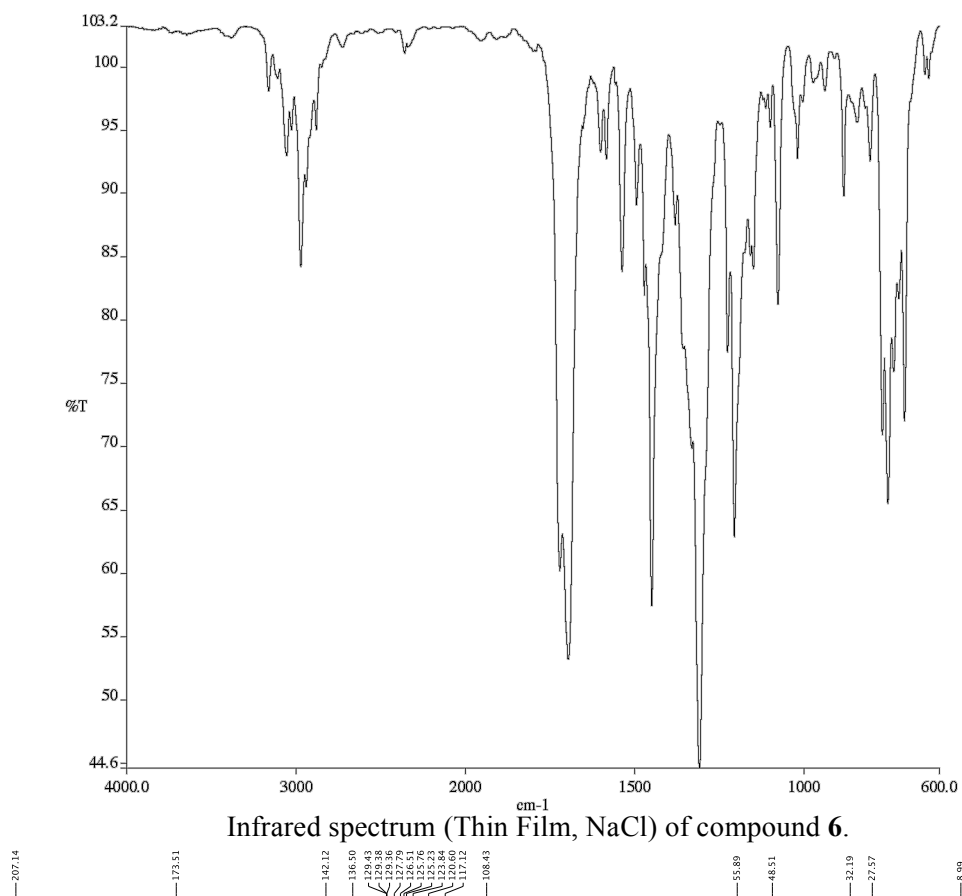




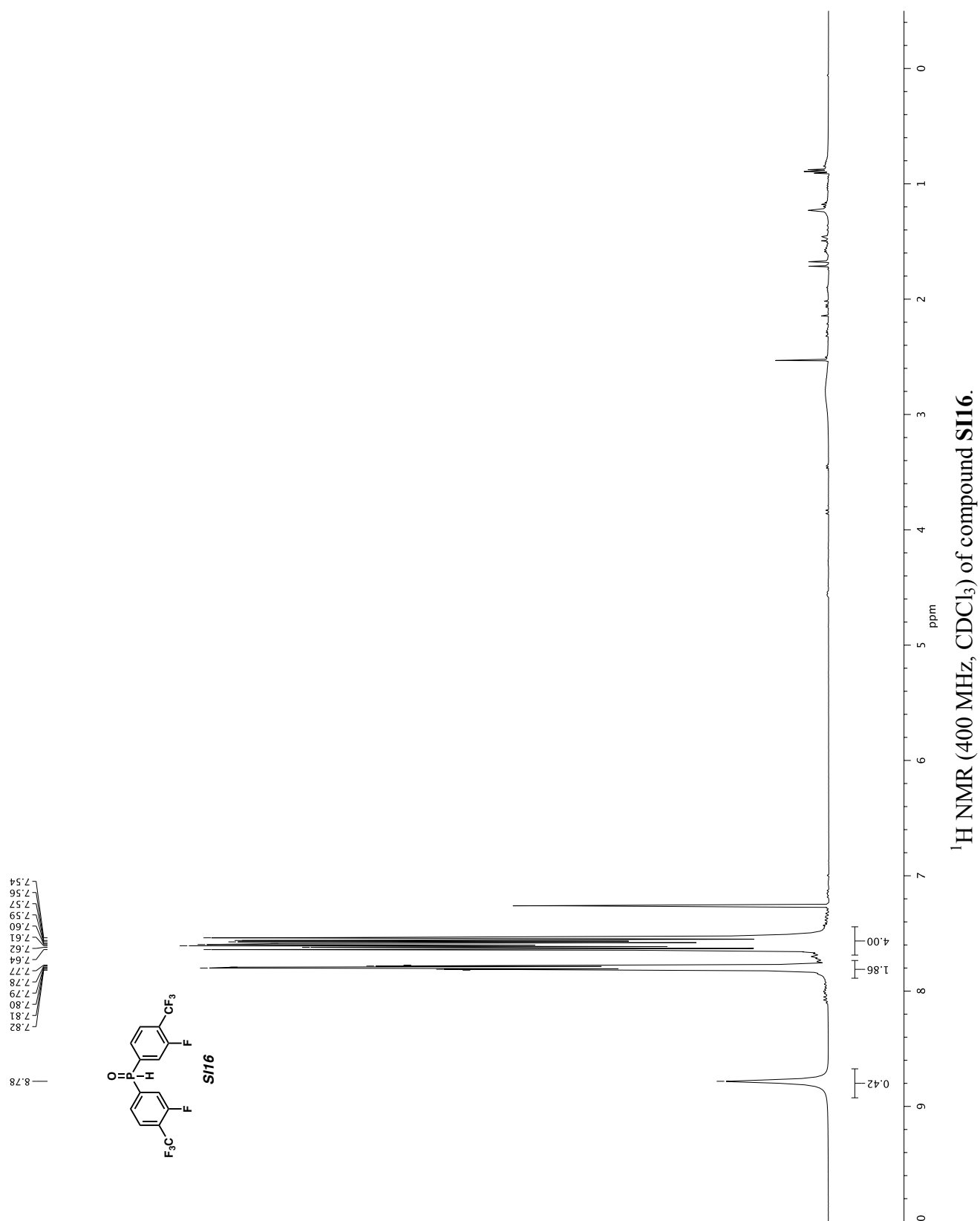
Infrared spectrum (Thin Film, NaCl) of compound 5.

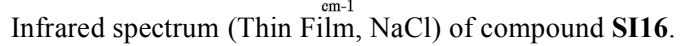
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound 5.

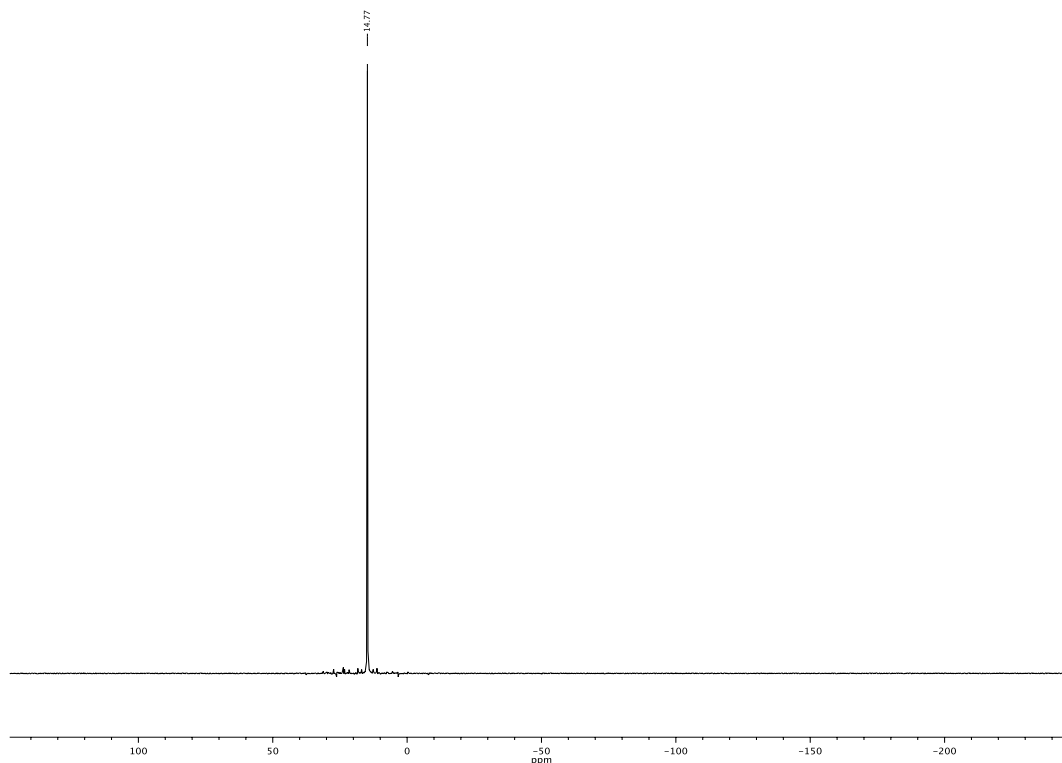
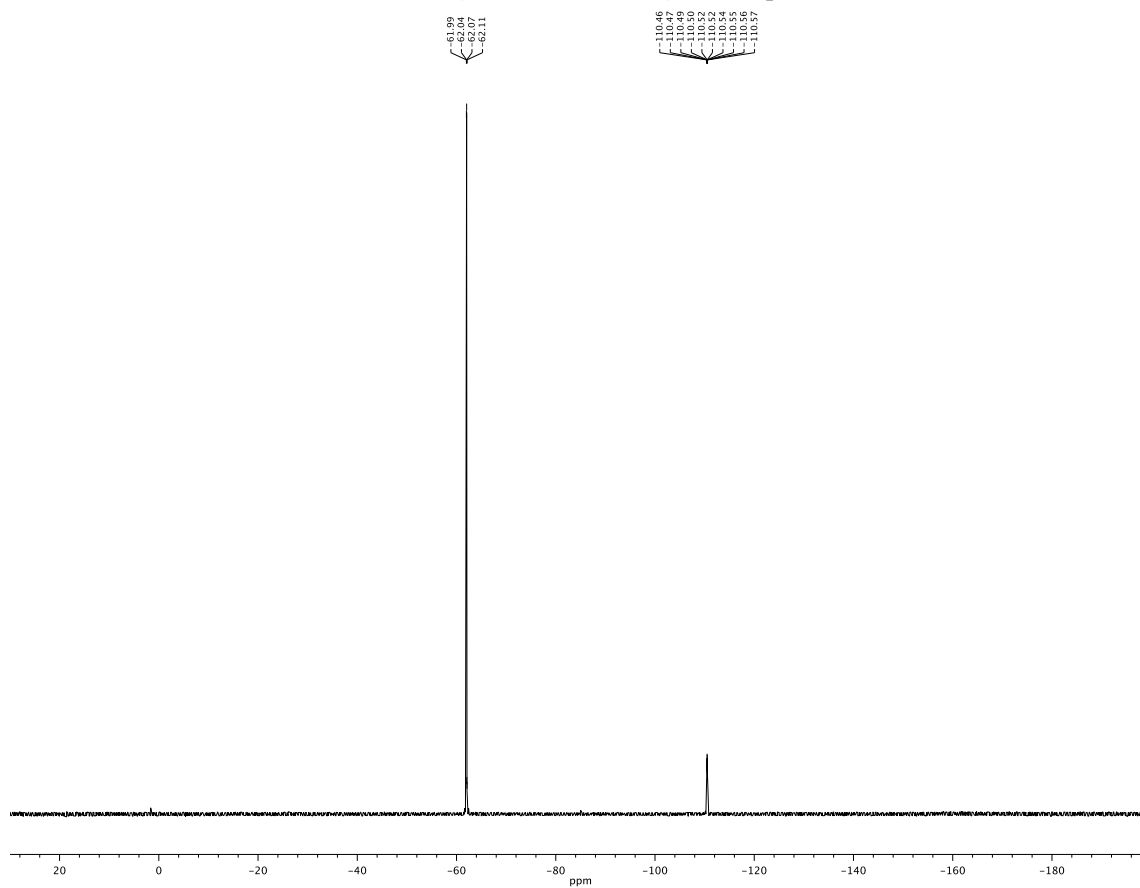




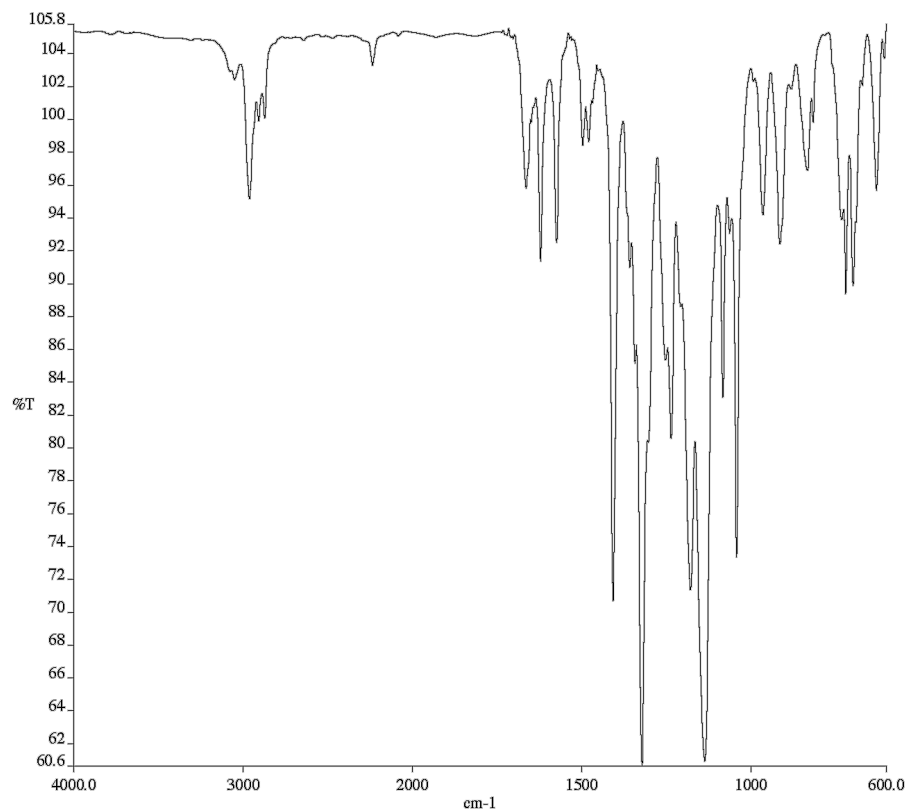
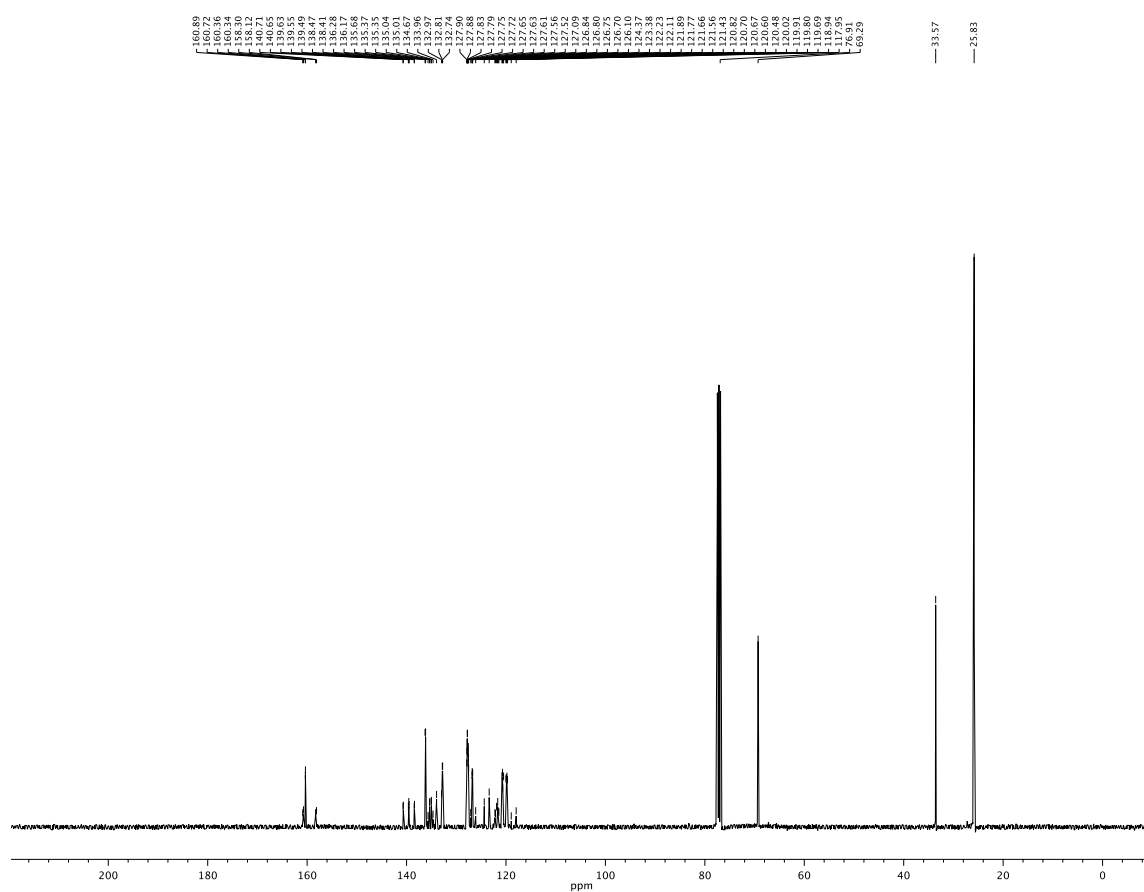


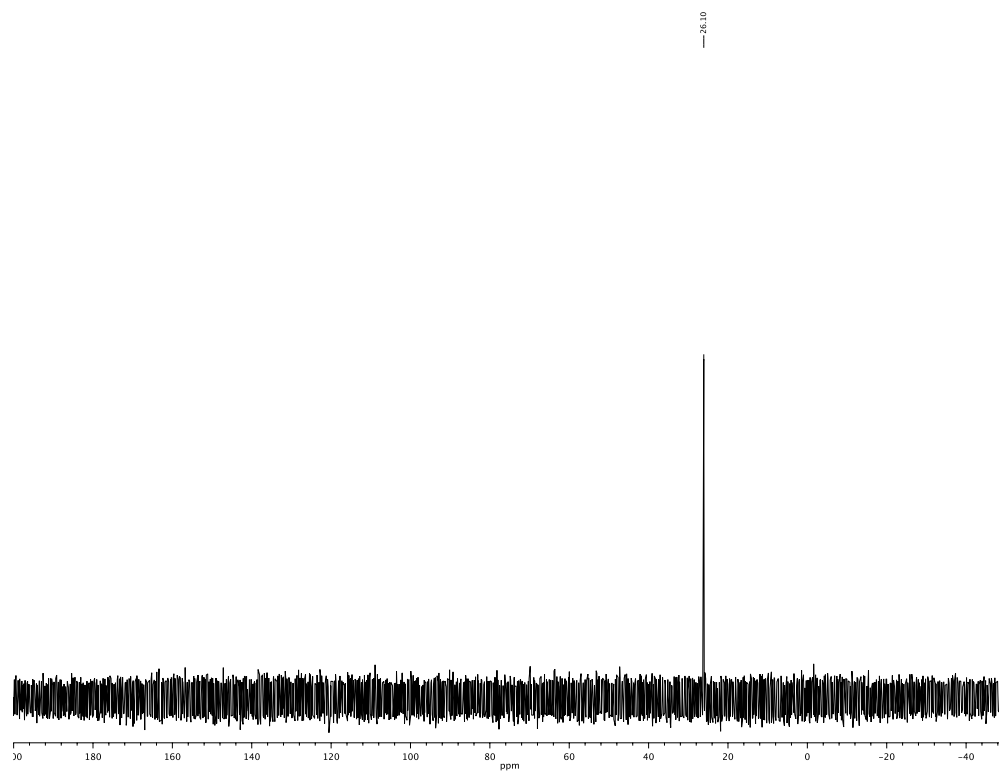
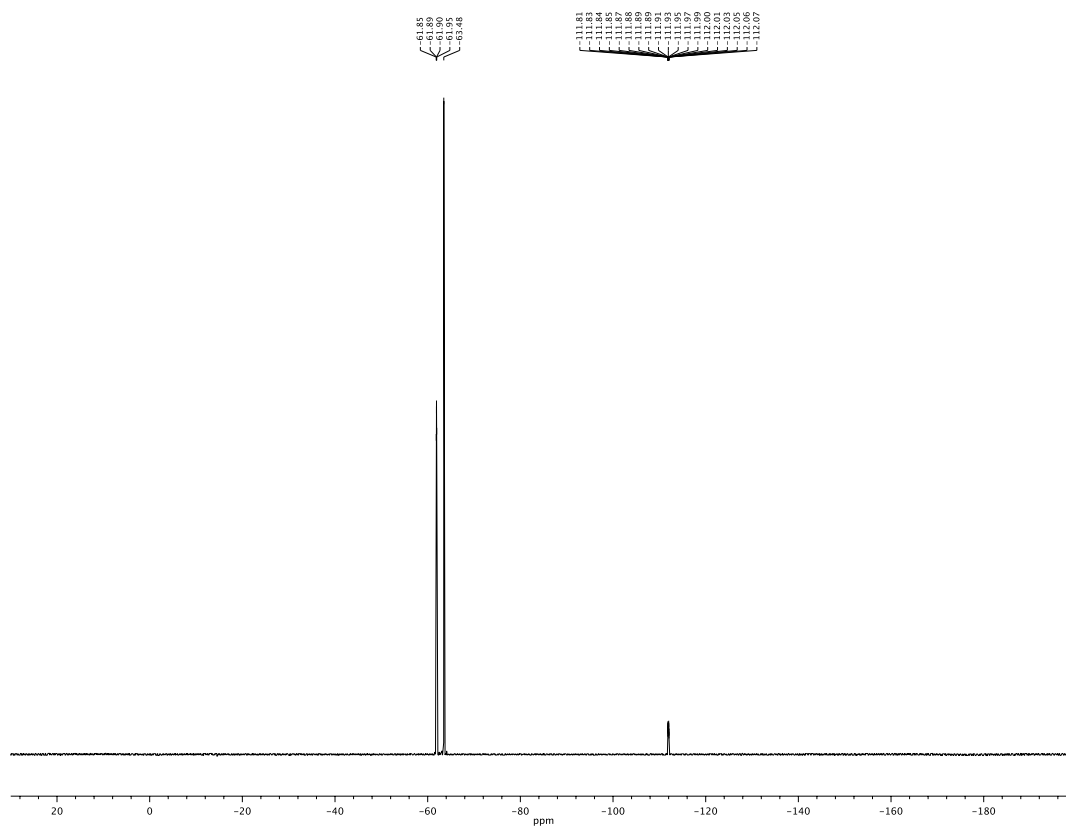


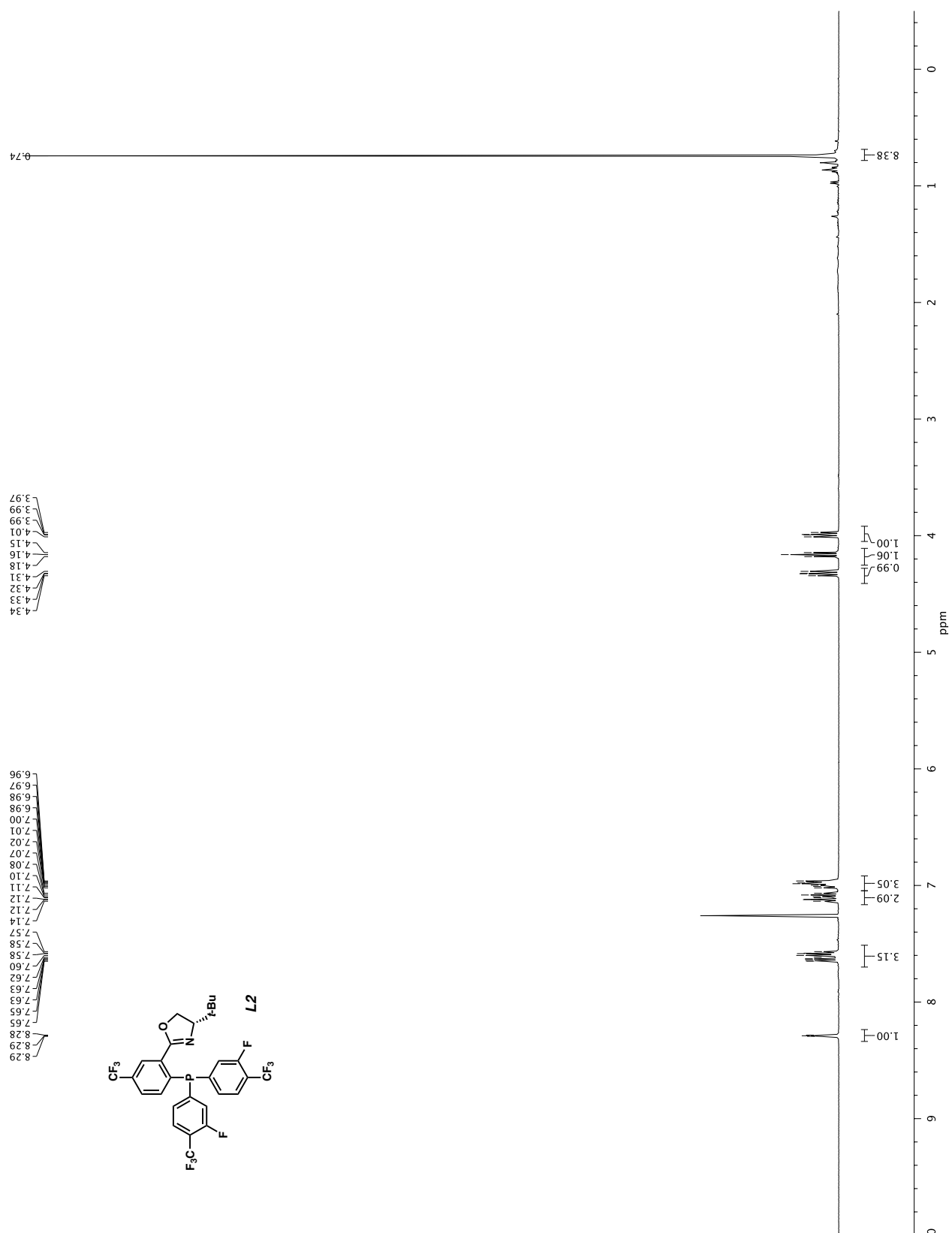


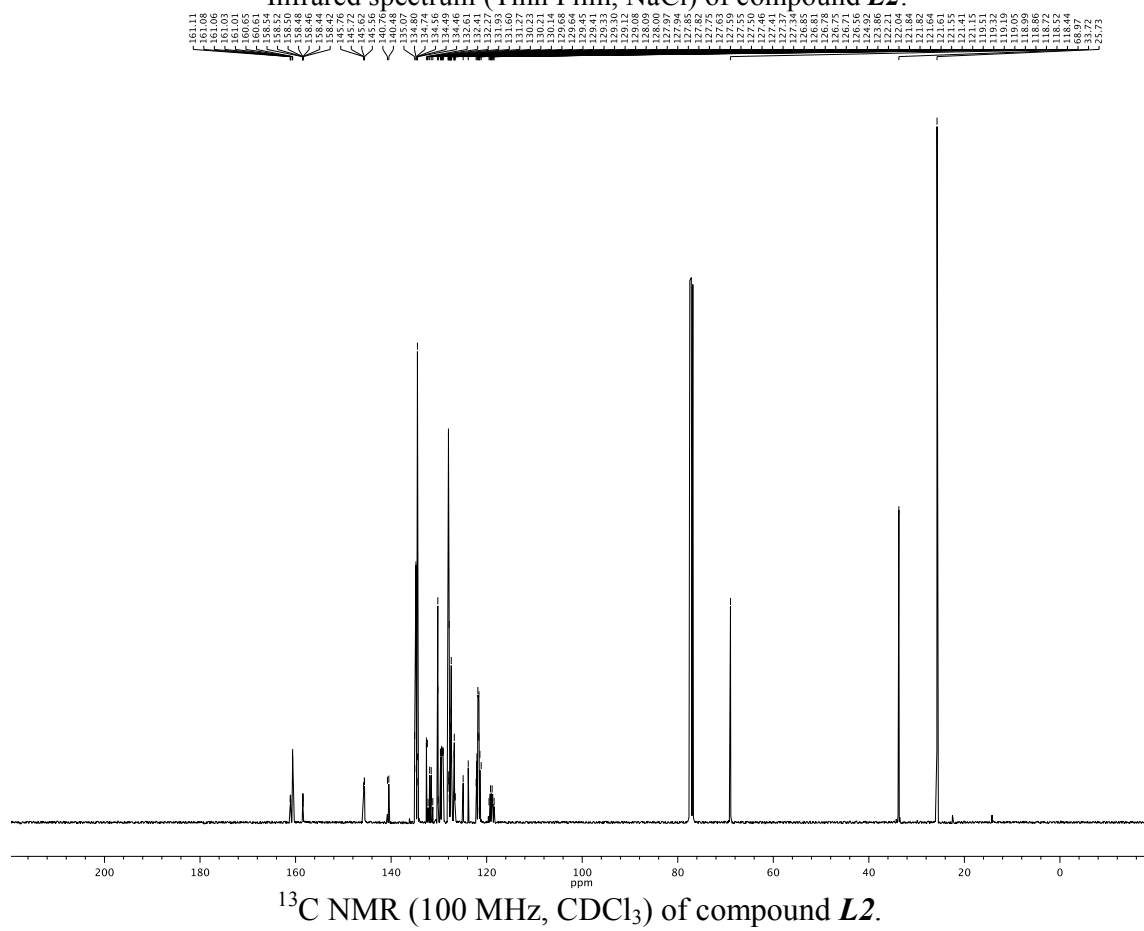
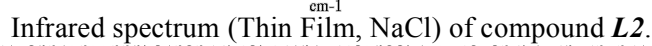
<sup>31</sup>P NMR (162 MHz, CDCl<sub>3</sub>) of compound **SI16**.<sup>19</sup>F NMR (282 MHz, CDCl<sub>3</sub>) of compound **SI16**.



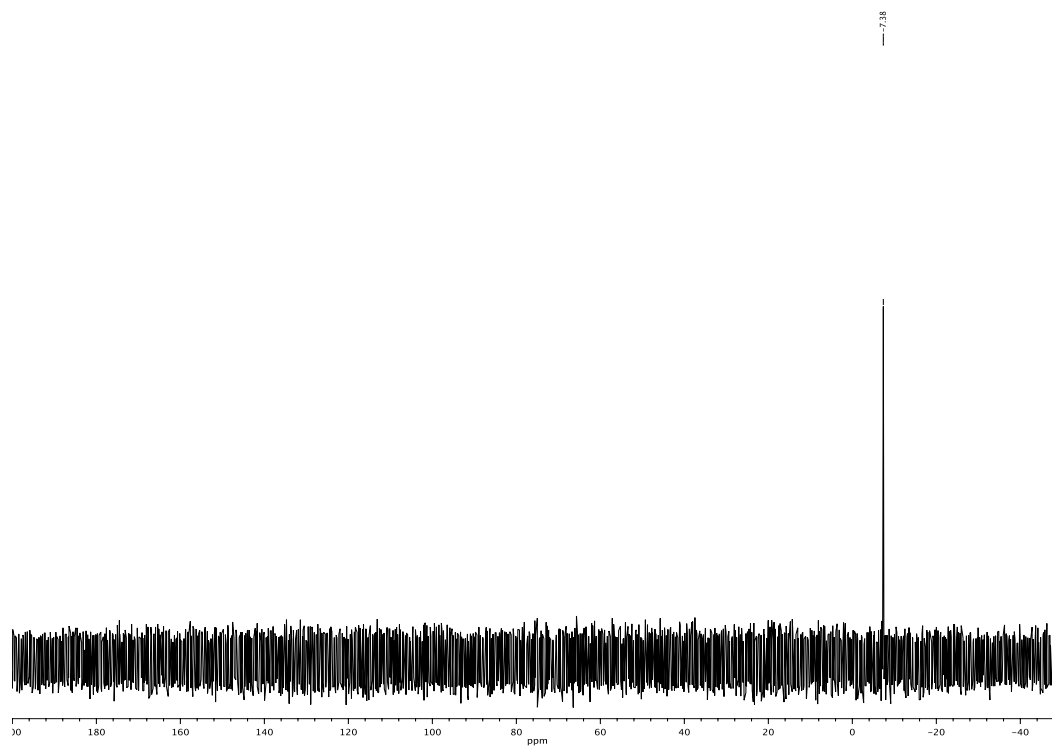
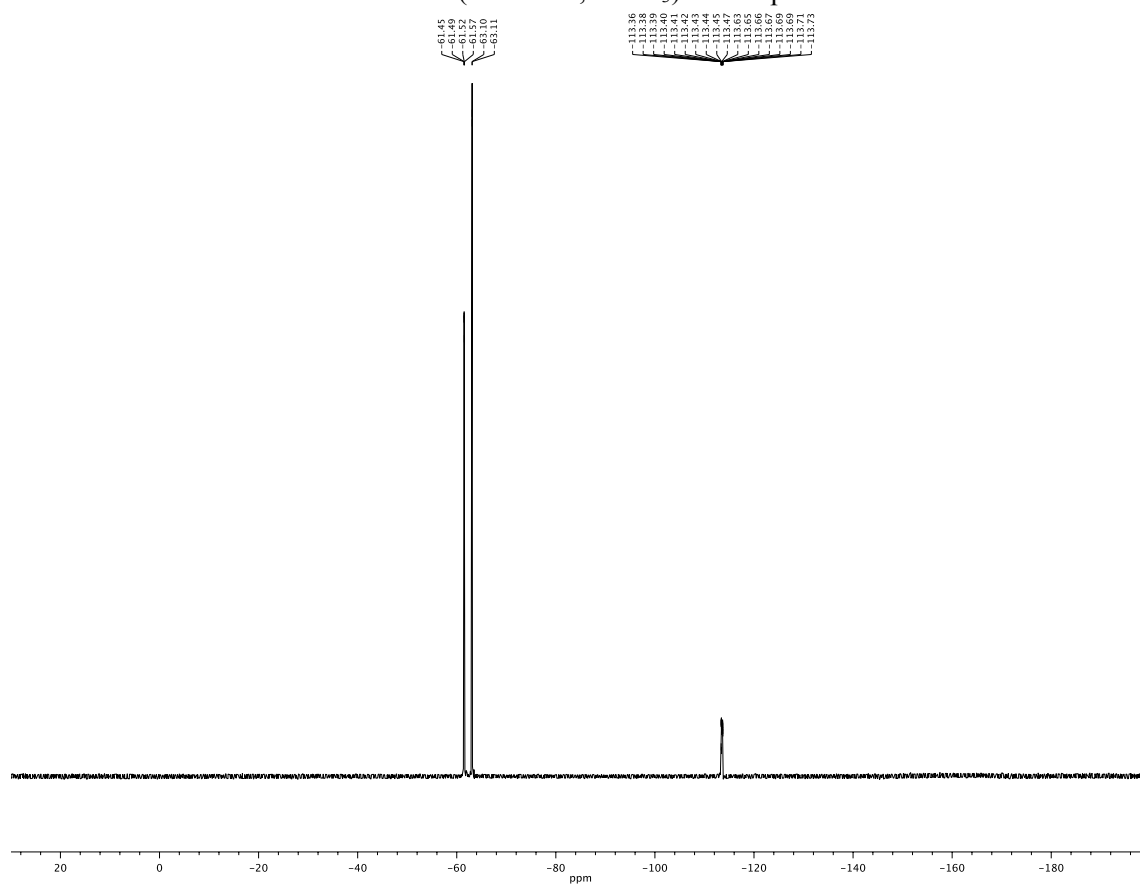
Infrared spectrum (Thin Film, NaCl) of compound **SI17**.<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of compound **SI17**.

 $^{31}\text{P}$  NMR (121 MHz,  $\text{CDCl}_3$ ) of compound SI17. $^{19}\text{F}$  NMR (121 MHz,  $\text{CDCl}_3$ ) of compound SI17.







<sup>31</sup>P NMR (121 MHz, CDCl<sub>3</sub>) of compound **L2**.<sup>19</sup>F NMR (282 MHz, CDCl<sub>3</sub>) of compound **L2**.